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An Arctic safari

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AN ARCTIC SAFARI

With Camera and Rifle in the Land
of the Midnight Sun



DICK PLAYS TAG WITH A HANDSOME YOUNG WALRUS, AND WINS

AN ARCTIC SAFARI

With Camera and Rifle in the Land
of the Midnight Sun

BY

RICHARD L. SUTTON, M.D., Sc.D., LL.D., F.R.S. (Edin.)

Fellow of the Royal Geographical Society; Member of the
French Geographical Society; Professor of
Dermatology, University of Kansas

*With more than one hundred illustrations, made
from photographs taken by the author*

AND BY

RICHARD L. SUTTON, JR., A.M., M.D.

AND

EMMY LOU SUTTON, F.R.G.S.



ST. LOUIS
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TO
L. I. S.

When you know the call of the berg and the floe,
And the peaks, so cold and gray,
Where the walrus sleeps, and the white bear creeps
On the rough pack ice to its prey,
Then you know the call of the jungle
No matter where it lies,
And the will of it, and the thrill of it
That last till an old man dies.

Preface



Each year the big game fields of the world are narrowed. It seems only yesterday that we shot antelope on the Colorado plains. Today a wild pronghorn is almost a curiosity.

Big game and civilization simply do not mix. The motor car was the straw that broke the camel's back.

On my last visit to Kenya, a friend in the King's African Rifles decided that he would like to kill a lion. With a light truck and a sophisticated white hunter he left barracks one October morning. Sixty hours later, he was back, with two lions. During that period he had covered eight hundred miles! Even the sturdiest and most athletic of felines cannot deny a man like that.

The expedition described in the following pages was undertaken for educational purposes as well as for sport.

An old and dear friend, Vilhjalmur Stefansson, the eminent explorer, often had told us of the beauty and grandeur of the Far North. Few men can paint a better word picture than he who discovered the white Esquimaux, and families such as mine, already imbued with an inordinate love of the great outdoors, naturally have a very low sales resistance to any strange region which is so replete with thrills.

I have always been a great admirer of Norwegian seamen, and for that reason we decided to sail, if possible, from a Northern Scandinavian port.

Experienced friends directed us to the Bennett Travel Bureau, of Oslo and of New York, and it was through this splendid organization that we secured the motorship "Isbjorn," of which Konsul Gudlief Holmboe, of Tromsø, is the deservedly proud owner.

The "Isbjorn" is a sealer, and ice boat, and as staunch and seaworthy as she is graceful and beautiful. She proved ideal for our purpose.

Together with my wife, son and daughter, and a crew which consisted of seventeen sailors and an experienced woman cook, we left Tromsø in May, 1932. We had purposely started early in the season, and ours was the first boat to reach shooting territory that spring. While the ice proved very embarrassing at times, we were so fortunate as to secure a large number of photographs, and a full complement of trophies and specimens.

Of the many friends to whom we are indebted, Dr. Stefansson comes first. In fact, if it had not been for this intrepid explorer, and kindly philosopher, the trip would never have been undertaken. When we left him in New York, his parting gift was a huge bundle of well selected books on arctic travel. These volumes we found helpful as well as entertaining, and during our stay in the ice, all of them were read and reread many times.

Of the various Bennett representatives with whom we came in contact, and to the prospective traveler I will say that the word "Bennett" is an open sesame throughout the Northern Country, we are most in-

debted to I. Giaver-Krogh, of Oslo. Mr. Krogh was born in Tromsö, and for many years has fitted out shooting expeditions to Spitsbergen, Franz Josef Land, and Greenland. All of this vast experience was at our disposal, and I must say, to use a British expression, that he "did us well." I have shot all over the world, and never have I had such admirable service. Not only did he save us much time and trouble, but his kindly forethought added immeasurably to our personal comfort and happiness. We shall always be grateful to him and to his charming wife for their kindness and generosity.

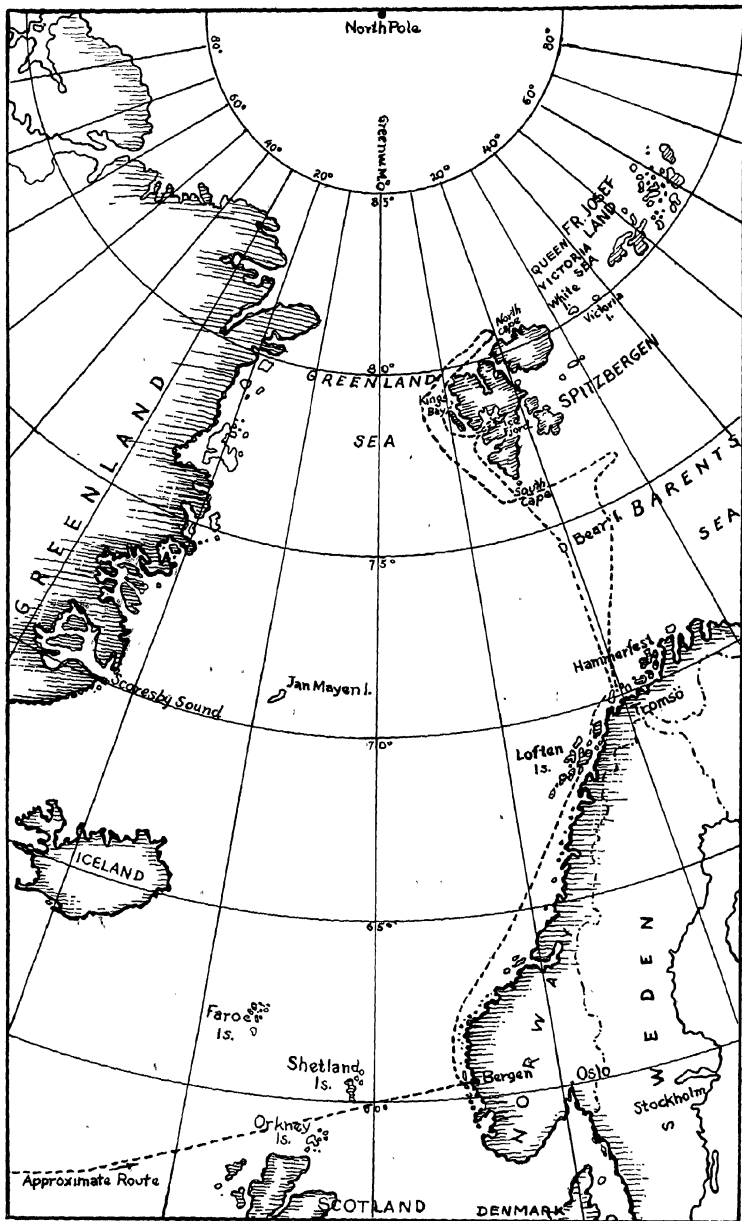
The officials of the Norwegian America Line extended to us every courtesy. We are particularly indebted to the First Officer of the SS. "Bergensfjord," Captain Halver Halvarsen, for many courtesies. Captain Halvarsen is a former whaling skipper, with much experience in the Antarctic, and it was to his tender care that we entrusted our rare hooded seals on the return trip to America.

All of the included matter previously appeared in the *Kansas City Star*, and I am under obligation to the Editor of that newspaper for permission to use it here.

For the translation of that portion of Professor Qvigstad's monograph on Spitsbergen Place names, which appears in the Appendix, I am indebted to my friend and former shipmate, Mr. Ernst Sorensen of Tromsö.

R. L. SUTTON.

Kansas City, Missouri.
October, 1932.



AN ARCTIC SAFARI

With Camera and Rifle in the Land of the Midnight Sun



HE man who crosses the Atlantic in early May shares the usual fate of a neutral, and in consequence is bedewed by summer showers, and half frozen by remnants of belated winter zephyrs.

In nine days we were blessed with only a few hours of sunshine, and those erratically distributed and grudgingly bestowed. The sun kindly showed itself on the morning of our arrival in Scandinavia, and the frowning, snow-decked headlands stood out, sharp and clear as etchings, as we entered the channel.

Bergen, queen of Norwegian cities, lounges back on the green hills like a beautiful but languid woman, her head decked by billowy wreaths of clouds, her feet in the clear, blue waters of the fjord. She is a Hansa town, and the mother of a roving, seafaring people.

Founded by King Olav Kyrre in 1070, and for centuries the great center of trade in the North, she can boast of one of the most magnificent of natural environments. Shipping and commerce have at all times been her existence. With such a harbor, it is little wonder that so large a proportion of her chil-

dren take to the water. Little boys sail boats and swim almost as soon as they can walk, and Norwegian sailors are noted for their skill and bravery throughout the world.

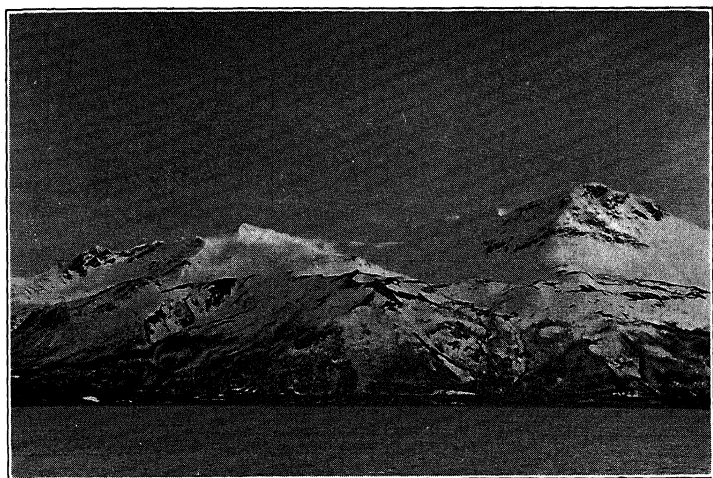
In a way, the date of our arrival, Whitsunday, was an opportune one. The following day, Whitmonday, also is a holiday, and Tuesday, May 17, is "Fourth of July" in Norway.

Scandinavians take the matter of holidays as they do most other things, very seriously. Not a business house was open. Many of the inhabitants took trips to the country, and indulged in skiing and other sports, and the ones who remained in town appeared to do so under duress. Even the newspapers amiably agreed among themselves to suspend operations, and for three whole days we were cut off from all news of the outside world. Of course the radio provided a certain amount of information, but (fortunately) there are fewer radios in Norway than in America.

Fighting the sea and the rough, stony hills for existence has developed in the northern races an admirable appreciation of economy and thrift. In the matter of hospitality, no one can hope to outdo a Norwegian, but with needless spending and waste he has no patience.

After we reached the dock, and while I was going over the luggage with the customs inspector—an operation which proved to be a mere matter of form, despite the fact that I had with me six rifles,

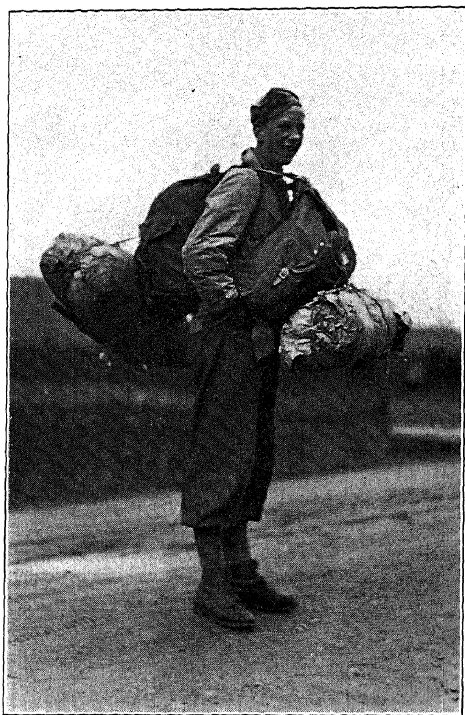
and a wheelbarrow full of high-powered cartridges—I was approached by an extremely courteous young gentleman, apparently the spokesman for a group of six, who decorously lifted his derby, and enquired if I was Dr. Sutton. Upon being assured that I was, and that the honor was all mine, he told me that he and his associates were “Gentlemen



Mountains on the west coast of Norway

of the Press,” and courteously intimated that they would like to interview me. Unfortunately, his command of English was somewhat limited, and my knowledge of Norwegian was even scantier, consequently I suggested that we defer operations until I had finished wrestling with the gun trunks, and it was arranged that we meet at our hotel within the hour. This we did, and after a very pleasant visit.

in which my daughter, Emmy Lou, did most of the talking, I was asked if we could spare some photographs. Inasmuch as I am the largest customer and principal support of one of the oldest photo-



A Norwegian youth on his way to military training camp. His mother feared that he might get cold, or hungry

graphic establishments in my native city, I promptly dug up a few dozen snapshots of the Sutton organization, not forgetting my dear wife, the real fisherman of the family, together with some samples of

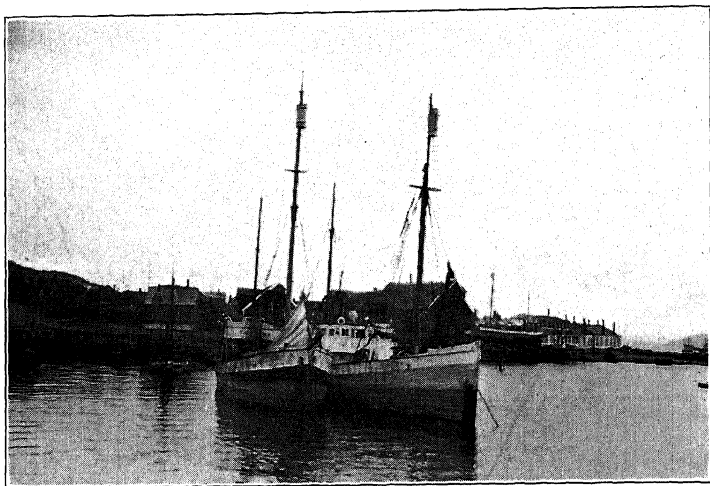
her prowess, in the form of several tarpon and swordfish which she has immortalized. These latter made a deep and apparently lasting impression on my interviewers. They had seen a lot of fish, for Norway is the home of many of our most popular varieties, but never fish like these.

They begged for one complete set of pictures. "Why not a set for each of the four journals which you represent?" I modestly asked. They held up their hands in economic horror. "Why waste all of those cuts?" they remonstrated. "We shall have one set made, and use it in unison." It was my turn to be startled. But later, when I discovered that no papers would be issued for almost seventy-two hours, I concluded that after all, they were probably masters of their trade.

About six o'clock that day, Dick, our son, came breezing in on the "Venus," from Newcastle. He looked brown and fit. He carried in one hand a beautiful old double-barreled ten-bore elephant gun, the former pet fowling piece of Sir Samuel Baker, a famous English big game hunter of the fifties, which he had turned up in Edinburgh; and in the other an ornate African knobstick, discovered in some curio shop on the Glasgow water front during a visit to that moist little burg. I was pleased to see him running true to family traditions.

Mr. I. Giaver-Krogh, Bennett's manager at Oslo, and Mrs. Krogh had run over to Bergen to welcome

us, and later to speed us on our way. Under such distinguished tutelage our Norwegian education progressed rapidly and smoothly. With the assistance of Mr. Krogh and a phrase book, Emmy Lou was able to order her dinner in the mother tongue on the second day, and on the third, she was vamping the skipper of our coast line steamer.



The "Quest" and the "Fortuna" nodded a welcome to us as we sailed into Tromsø harbor

We spent Independence Day with the Kroghs, and had a very interesting and enjoyable time. The parade was at least a mile long, and both participants and spectators got quite a thrill out of it, particularly the children. All of the old guilds were represented, and many of the ancient costumes were attractive and beautiful. The program included a

number of eloquent speeches, and one fine old orator, a representative of the Farmers' (Left Wing) party, praised Thomas Jefferson in no uncertain terms. It almost made me homesick.



A charming little Lapp maiden shows us her pet dog

The grand stand was a huge model of a Viking ship. One of the afternoon attractions was a greased (or, rather, soaped) pole performance. The Norwegians are athletes as well as sailors, and no schoolboy standards of performance are tolerated.

The "pole" was a huge mast, fifty-seven feet tall, and to a crossbar at the top were attached a number of prizes, such as skates, overcoats, shoes, caps, and yarn stockings. The booby prize was a string of pretzels at least four feet long.

The Norwegian people impress one as intensely patriotic, meticulously honest, and great lovers of family life. I have never seen finer, healthier, or more attractive children. Chubby, rosy-cheeked, clean, and always smiling, they prove almost irresistible to a visitor who naturally has a very low sales resistance to such fascinating kindergarten subjects.

While the parade was under way, Dick, in his usual enthusiastic and scientific manner, took his movie camera and went in search of suitable photographic material. I noted that the groups of peachy-cheeked, flaxen-haired damsels appeared to absorb quite a bit of his attention. In his eager excitement, he left his open camera case, with two rolls of film, on the sidewalk in front of the hotel. This goes to prove how interesting the procession must have been. The rest of our party viewed the festivities from a small portico on the second floor. Dick rejoined us at noon, having been absent two hours. He vainly searched the adjoining room for his camera case, and then remembered that he had left it on the sidewalk, near the main entrance.

Mr. Krogh assured him that if he had, it would still be there, and suggested that we first have

luncheon, and he could then go down and get it! After some rather caustic comment on carelessness, I suggested that he wait until we reached Tromsö, and pick it up there. Finally, I offered to wager Mr. Krogh ten kroners that the case would be gone. "I do not want to take your money," he said, quietly. "If the young doctor is worried, let him go down now and get it." Dick went, like a shot. The case and films were exactly where he had left them! At least fifteen thousand people had passed and repassed that spot within a period of two hours.

Mr. Krogh insisted that an overcoat or similar article, lying on a park bench, would have been just as safe. He complained that the people were less honest now than in pre-war times!

There has not been a bank robbery, or a holdup in Bergen within the memory of man, and the last murder, in which one drunken sailor stabbed another with a marlinspike, occurred forty years ago. The inhabitants blush when they recall this crime, and several acknowledged to me that it would be a long time before the town succeeded in living down the shame of it.

Mr. and Mrs. Krogh brought from Oslo for us a very fine woman cook, who spoke both Norwegian and English. She proved a great source of comfort to my wife and daughter on the expedition.

At nineteen o'clock (7:00 P.M.) on Tuesday, we left Bergen on the SS. "Polarlys," for Tromsö.

This ship is one of a coastwise fleet of fourteen, plying up and down the west shore of Norway.

During the next four days, we were popping in and out among the countless islands and fjords which dot the coast. The scenery was beautiful and impressive. Already we had reached the "Land of the Midnight Sun," and one could read ordinary



The main street of Tromsø, Norway, showing the historic Grand Hotel immediately in the foreground

print on deck at midnight. About 2:00 A.M., we stopped at a small hamlet to disembark a passenger. I started to switch on the electric current. There was no need—I could plainly see the dial of my watch without it!

The "Isbjorn" ("Ice Bear") is a powerful little auxiliary cruiser, equipped with sails and a Diesel

engine, and is used for sealing when not under private charter. She had a crew of seventeen, with Captain Bergersen, a widely known ice pilot, and arctic navigator, in command. It was the "Isbjorn" which recently brought the *Andrée* relics to Tromsø.

We sailed on May 21, and as the ice was open fairly early that year, we hoped to cover considerable territory within the next two months.

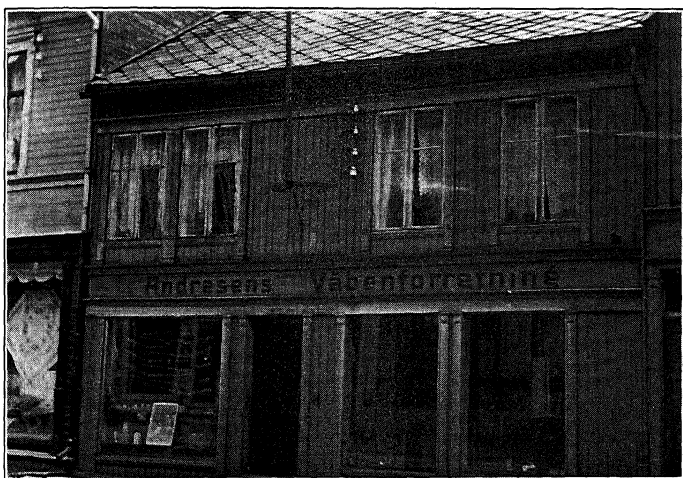
THE "ISBJORN"

TROMSÖ, the commercial capital of Northern Norway, is located on Tromsö Island. The present city dates back only to 1795, but ruins in the vicinity would indicate that the site has been used for human habitation for at least a thousand years.

Tromsö rather prides herself because people refer to her as the Paris of the North. In reality, she is the Nairobi of the Arctic, for it is here that the majority of polar expeditions are recruited and equipped, and a sophisticated visitor can find a thrill at almost every corner. As our coastwise transport, the "Polarlys," steamed in—after a tiresome voyage of four days—during which we stopped at every pig trail between Bergen and the Lofotens, the "Quest," staunch old warrior of the floes, and Shackleton's choice for his ill-fated voyage to the Antarctic, nodded us a greeting from her anchorage in the cove. Our own dear little boat, the "Isbjorn" ("Ice Bear"), freshly painted, was gaily decked out in holiday attire, to welcome us. The Stars and Stripes snapped in the wind at her peak, and the beautiful Norwegian cross floated from the stubby mast on the after deck.

Her owner, Konsul Gudlief Holmboe, who is also Bennett's representative at Tromsö, was on hand to welcome us. Mr. Holmboe's family is one of the

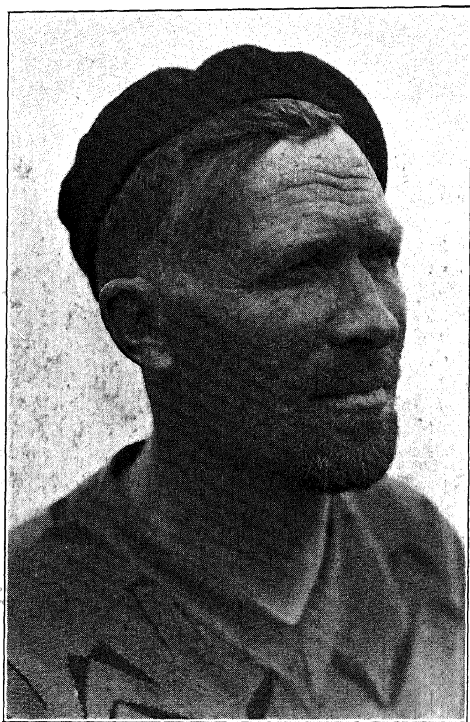
oldest and best known in Norway, and the name proved an open sesame throughout the North country. Accompanying him was our guide, white hunter and cicerone, Ernst Sorensen, a serious but kindly philosopher of forty-four, who was as learned and courageous as he was versatile and homely. He had once spent two years on an Iowa farm, and he



Andresen's gun shop, one of the most famous in northern Norway

spoke English, French, and German equally well, with a slight smattering of Russian, a few fragments of Lapp, and a touch of Esquimaux. Abraham Lincoln was his hero, and Kant his intellectual god. He was a walking compendium of Spitsbergen history, and had an excellent memory for geographical details. During our entire voyage of many thousands of miles, he never once failed

correctly and instantly to recognize even the tiniest geographical detail; and nearly every bay and mountain recalled to him an interesting, and sometimes tragical, story. Ernst, or "Ernie," as we soon learned



Ernst Sorensen, handsome, graceful, and debonair

affectionately to call him, was not particularly strong on shooting game, but like many other of my friends who have a failing for roast duck, and who seldom stop to enquire as to the manner in which the fowls

are procured, Ernie never failed to answer roll call when the dishes began to rattle. In traversing soft ice, and in scaling the slick and greasy, ice-covered mountain peaks he was absolutely fearless, and astonishingly expert. His greatest ambition was to circumnavigate Spitsbergen in a kayak. I trust he will never attempt it, for if he does, he certainly will be frozen stiff, red whiskers and all.

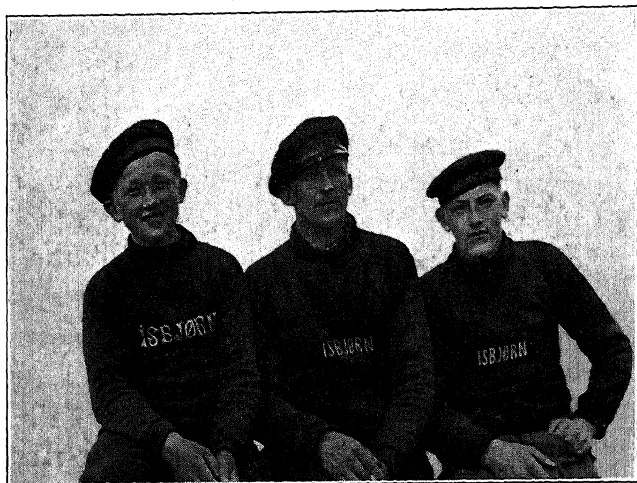


Part of the crew of the "Isbjorn," on dress parade

Our nineteen different pieces of luggage were whisked over to the Grand Hotel, an historic wooden structure that has at various times housed half a hundred arctic heroes, from Nansen to Amundsen. The proprietor, Mr. Ragnar Hansen, who is also a sportsman, extended to us every courtesy, and even persuaded me (my sales resistance al-

ready being very low!) to accept an invitation to a big fishing party which he wished to give in our honor immediately after our return from the North.

Early the next morning, which happened to be Sunday, all of us walked down to the harbor to inspect our ship. Mr. Holmboe was very proud of her, and not without cause. The "Isbjorn" is cutter



Three of the handsomest members of our crew

rigged, with a triangular sail, no guff, the so-called "pool master rig." She is 108 feet long, and her hull is built up of nine layers of wood, 22 inches in all. The outer sheathing, excepting for the prow, which is of steel plates, is greenheart. Her engine is a 200 horse power Bolinder, burning crude oil. While her speed is not great, averaging ten miles an hour, she has proved very reliable. She has a

cruising radius of seventy days at full speed, about fourteen thousand miles. The passengers' cabins, accommodating eight, are located aft, with fore-castle room for a crew of twenty.

The galley for the crew's cook was manned by Myhre, a famous sealer chef who has spent nearly fifty years in the Arctic. He persisted in going



Myhre, the ship's cook, trying to thaw out the kitchen pump

about, no matter what the temperature, with bare ears and with rolled-up sleeves, much to the perturbation of Emmy Lou, who feared he would freeze to death. But he never did, at least while he was with us. Our personal cook, Mrs. Lundh, of Oslo, had been selected by our friend Mr. Krogh, and she certainly proved a jewel. She spoke excellent Eng-

lish, and we learned to set great store by her culinary skill.

Our skipper was Captain Albrecht Bergersen, of Tromsø. He went to sea at the tender age of fourteen, but since that time he has steadily grown tougher and tougher, for when we got nipped in the ice, or the boys allowed a big bear to outwit them, he could express himself in crackling phrases that left a brimstone odor on deck for hours afterward. He was a splendid rifleman, the result of sealing in rough water over a period of years. Like all of the expert field shots that I have known, he never took a chance at missing if it could be avoided. When his 6.5 millimeter Krag Jorgensen spoke with its 30-inch, rake handle-like barrel, we could safely count on something for the pot.

Captain Bergersen was an extremely industrious individual, and an expert hand worker. He took great pride in his ability as a carpenter, and was never idle.

The first officer, Mr. Albert Nielsen, also had spent almost his entire life at sea, principally in Greenland and Spitsbergen waters. He, too, was an excellent shot, and a very capable navigator. His brother, Lars, was lost through the ice while sealing in Greenland, in 1931.

Ingebricht Ingrebrigtsen, a fine-looking, clear-eyed Norwegian of thirty-six, was second mate, and much of our success in collecting game and speci-

mens was due to his keen eyesight while in the lookout barrel, or "crow's nest."

Our steward, George Olsen, had formerly lived in Seattle, and almost everywhere else, for he was a boy with a loose foot, who never tired of seeing the world. He proved exceptionally capable, in fact he was so nearly a perfect steward that I often



Captain Albert Bergersen, our skipper, a skilled navigator and ice pilot

feared a bear might catch and eat him. Such men are rare. The good die young. Olsen was always taking chances. When a request for volunteers was made, to drive a recalcitrant white giant out of the craggy pressure ridges, or to battle a hard-boiled old bull walrus, with tusks a meter long and a head as hard as a granite boulder, George was al-

ways the first man to step to bat. When I would plead with him to give way to some less useful man, he would beg, with tears in his eyes, "Just this



"Steward" George Olsen, a Tromsø boy who could not stay ashore. A splendid young chap

once," and of course no one could refuse a request like that. In August, he planned to go to Greenland for a two-year trapping tour. I trust he makes a record catch.

Our pantry supplies were a joy to behold. Mr. Krogh had laughingly assured me that the list was seven meters (twenty-one feet) long, and after a look at the well-filled shelves, I could readily believe



Mrs. Lillemond Lundh, the champion Lady Cook of the Arctic

him. Mr. Albert Bennett had shipped all of the canned fruit from New York, and the supply of Del Monte peaches and pears and pineapple and cherries would have stocked a grocery store.

We took with us enough fresh meat to last a week. After that, our guns were supposed to supply our larder.

Birds were plentiful, particularly those of the auk family (guillemots and puffins), and when properly prepared, nothing better could be desired.

Emmy Lou and Dick and I took turns in "shooting for the safari." About fifteen birds a day were required. At first, Emmy was not very expert with a shotgun, all of her previous shooting having been done with a rifle. But whenever she failed to secure the required number of birds, that day she got no puffin for dinner, and before long she was able to keep up with the best of us.

I can see her now, standing up in the prow of the boat, her little 20 bore, over and under, at the ready, and hear her humming:

Watch out, little guillemot,
You are headed for the pot.

While it may seem strange to you,
You will make delicious stew.

Breakfast, supper, tea and lunch,
I must feed a hungry bunch.

Fifteen nice, plump birds a day
Our brave men can stow away.

Though it pains me, beyond words,
I must get those fifteen birds!

BEAR ISLAND

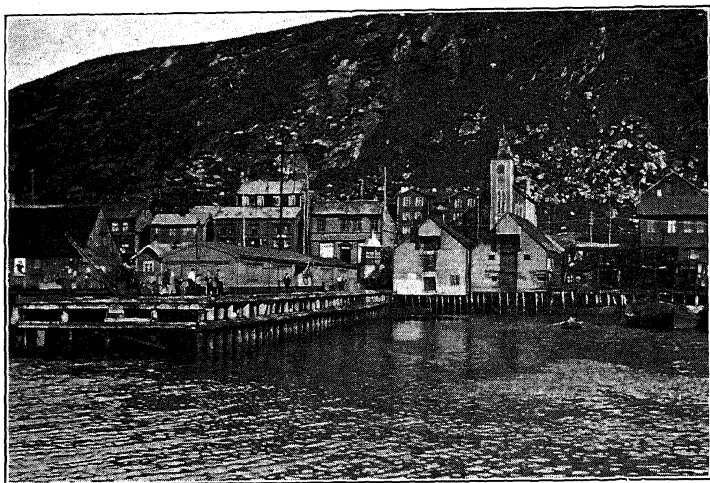


MONDAY is my best day in the week, and when the "Isbjorn" hoisted anchor at ten o'clock, on May 23, and a hundred friends on the dock waved good-bye and good luck to our ship and its crew, I was grateful and happy. The sky was overcast, and there was a fresh northwest breeze, but the temperature was not much below freezing, and as our men were thoroughly familiar with their work and with the boat, by noon everything was running with clocklike precision. We were fortunate in the matter of personnel, from captain to cabin boy, and during the entire cruise there was no reason to complain of food, quarters, or service.

The fjords of Northern Norway, while somewhat smaller and less impressive than those of the South, are exceedingly beautiful, and as the little "Isbjorn" ploughed her way through the dark water, Ernst Sorensen, our guide, identified for us old landmarks, and stupendous glaciers. The temptation to photograph each and every one of them was almost irresistible, but moral discipline triumphed, and for the most part we withheld our fire, but with the inward determination to immortalize them on the return trip, provided the bears and the whales and the walruses did not completely bankrupt our supply of film.

We were of course in a hurry (who ever has seen a sportsman who wasn't?), and for this reason we cut corners, and omitted Hammerfest and North Cape from our itinerary.

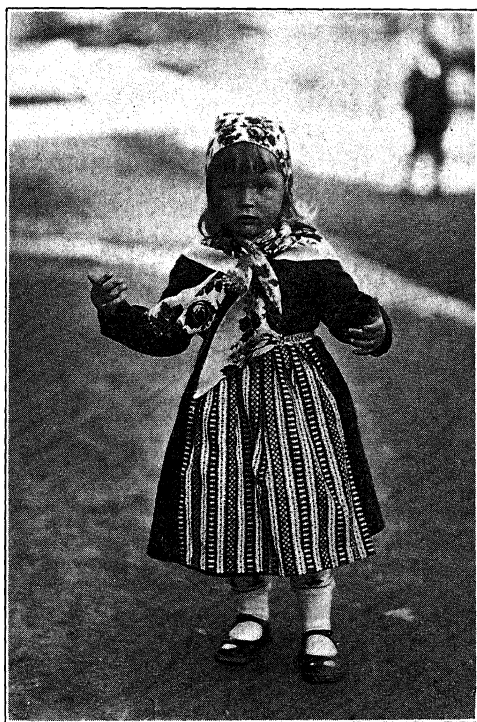
We had been warned that the strip of open sea which separates Norway from its neighbors on the north was sometimes a bit saucy and turbulent, and



Hammerfest, the northernmost city in the world

the discovery in my closet of a set of high, extra sideboards for my bunk warned me that the dainty "Isbjorn" was not always the demure and even-keeled little lady she had seemed while resting in the protected harbor at Tromsö. And when the swells struck us, how she did perform! My wife, Emmy Lou, and Mrs. Lundh, our efficient and versatile cook, all had freely partaken of a patent

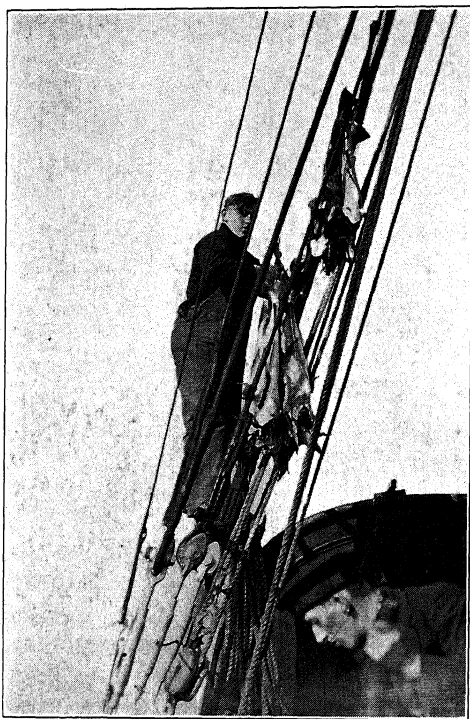
seasick remedy, but when the fatal moment arrived, the kitchen engineer was the first to fall, and she precipitately retired to her cabin, apparently a very sick lady. Mrs. Sutton was the next to go, and



The Princess of Tromsø, dressed in native costume, greets her father,
Konsul Gudlief Holmboe

finally dear little Emmy, both bravely remonstrating to the last. I have spent many months of my life at sea, and experience on such vessels as the old U. S. Monitor "Puritan," and the "Alvarado"

should have hardened me to withstand almost anything, but the combination of high rollers and dish-pan bottom quickly proved too much for me, and I, too, went on a protein-free diet. Dick proved the

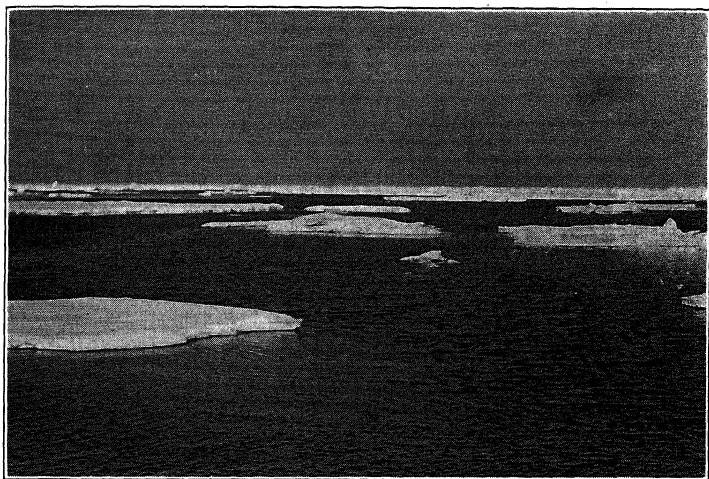


Hanging up codfish in a natural refrigerator

toughest of the lot, and it was not until we had put Bear Island far behind us that he was compelled to call calf rope.

Just before noon, the second day, we encountered ice for the first time, and to us Middle Westerners,

the sight was an impressive one. Nothing quiets the billows like a multitude of floes, and our *mal de mer* vanished like magic. Again we had to exercise considerable self-restraint in the matter of kodak portraiture, but the Scottish strain in our ancestry triumphed, and I think that we did not use up more than three packs of film.



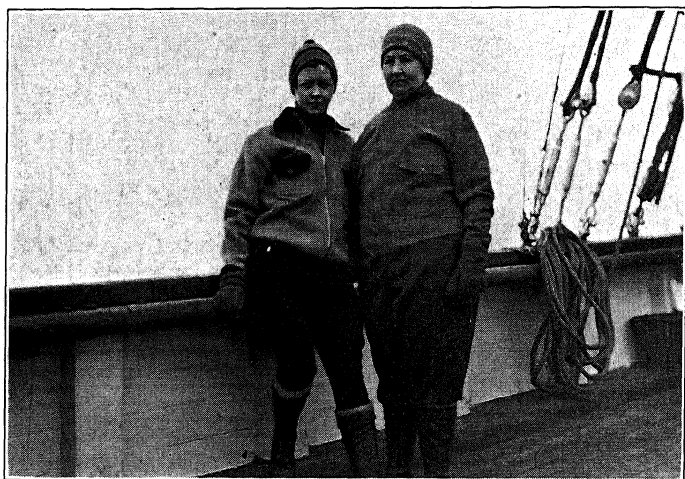
Small floes, south of Bear Island. These are not large enough for bears or seals

The tall and ponderous cliffs of Bear Island (74° N, 19° E), surrounded by a five-mile skirt of pack ice, loomed up through the fog at lunch time.

Bear Island lies about one hundred miles farther north than Point Barrow, the northernmost point of Alaska, and is noted for its gloomy atmosphere, and

its comparatively inaccessible coast. Dick said its outstanding characteristics were fogs and puffins.

Bear Island was discovered by the Dutch explorer, Willem Barentz, June 9, 1596. It received its name from a famous fight which the Hollanders had with a huge polar bear (said to have been twelve feet long, which I very much doubt, unless



Emmy Lou and her mother attired for the Arctic

bears grew bigger in those days than now), which they finally succeeded in killing. No big game is to be found there at present, only a few million auks and gulls, and two lonely radio operators.

Owing to the persistence of a strong northwest wind, we decided to try our luck eastward, along the rough and jagged edge of the pack ice, to a point south of Hope, or Sea Horse (Walrus), Is-

land. Bergs and "berg bits" (small pieces of fresh water ice from the glaciers, averaging only a few thousands of tons in weight) were encountered at intervals, together with some slush ice. The temperature remained moderate, from 10° below to 5° above freezing. Numbers of small seals, "snads,"

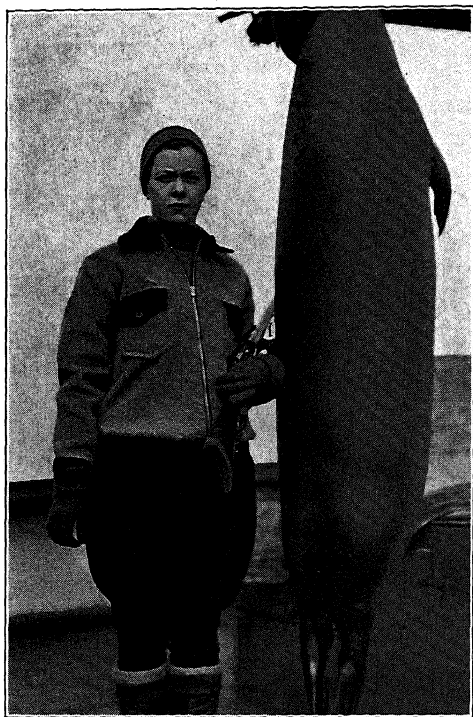


A huge old whiskered *Phoca barbata* eyes us suspiciously as we try to stalk him for photographic purposes

were seen resting on the floes. They gnaw a hole through the ice from below, and they keep the opening clear for months at a time. They sun themselves, lying beside this two-foot aperture, and the moment even a suspicion of danger presents itself, with a sprightly flip they vanish into the water. The bears are their greatest enemies. Generations

of training have taught them to be constantly on the watch. Incidentally, it has taught Bruin the same lesson!

A seal will doze for three minutes, wake up, look



Emmy Lou with her first specimen for the Museum of Natural History, University of Kansas. It was a *Phoca barbata*, weighing about two hundred pounds.

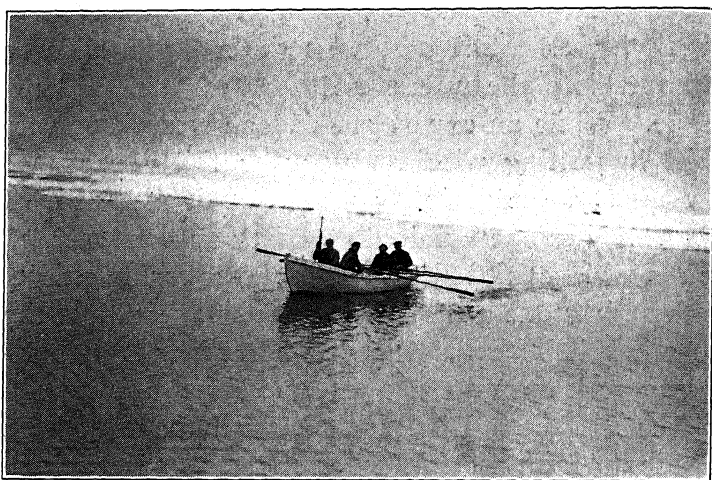
around, and again drop off to sleep, for another two- or three-minute period. They are attractive, and intelligent looking, and very kindly.

About fifty miles east of Bear Island, we saw our first big seal, a half-grown *Phoca barbata*, weighing about two hundred pounds. I asked the skipper to show us how to stalk them, which he obligingly did. It is a task which sometimes proves difficult, for the animals are wary, and have a good sense of hearing, as well as excellent eyesight.

They are killed on the ice, and a brain shot is absolutely essential, otherwise the seal will slide or flounder into the water, and the body sinks like a stone. While an expert stalker can sometimes succeed in getting within twenty or thirty yards of the quarry, the majority are killed at distances of from fifty to one hundred yards, or even farther. I use a rifle equipped with a four-power telescope, which gives one a tremendous advantage, unless the boat is bobbing up and down. Sooner or later however, youth always triumphs, and before the expedition ended, both Dick and Emmy Lou, using iron sights, had me bested. The sealskins and the blubber are valuable, the former goes to the hunter, the latter is sold, and the proceeds divided among the crew.

Norwegian rowboats deserve a paragraph to themselves. Those on the "Isbjorn" were clinker built, eighteen feet long, and four broad, at their widest part. Each is equipped with four sets of rather narrow, nine-foot white pine oars. Each oar is fitted with a grummet, or rope loop, to be slipped over a tholepin on the edge of the boat.

The three forward oarsmen sit facing the stern, while the rearmost, who is also the steersman, and in command, faces forward. Near the prow, on either side of the gunwale, two U-shaped notches are cut, for harpoon rope play. The triangular box in the bow is reached through a small, square opening, covered by a loose canvas flap. In this com-

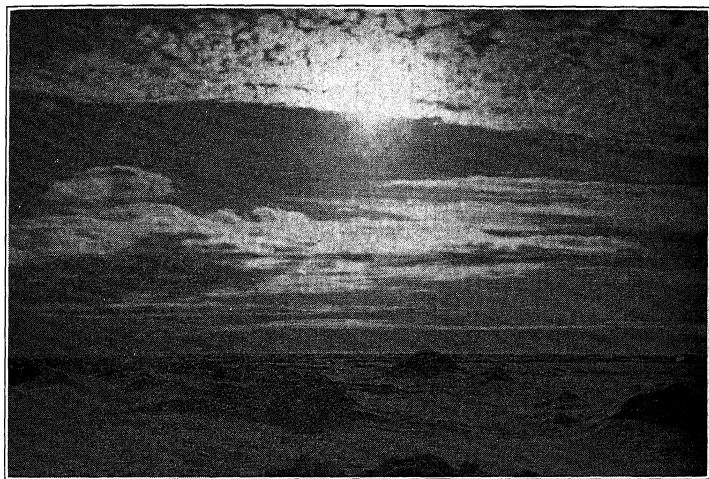


Dick and his boat crew, returning from a successful stalk

partment the harpoon heads, and extra cartridges are stowed. The sealing rifles, of 6.5 millimeter Krag Jorgensen military type, are suspended from hooks, within handy reach.

After two days along the pack ice and loose floes east of Bear Island, it was decided we should try waters farther north, and our course was again laid for the Island. By this time, however, the wind out

of the polar regions had increased to a gale, and we were glad to find shelter in South Haven, a natural harbor on the south side of Bear Island. Our vessel was not the only one seeking protection. We had turned in at eleven o'clock, with the sun still shining but with a cold, raw wind playing tunes in our rigging. When we awoke, our little ship was



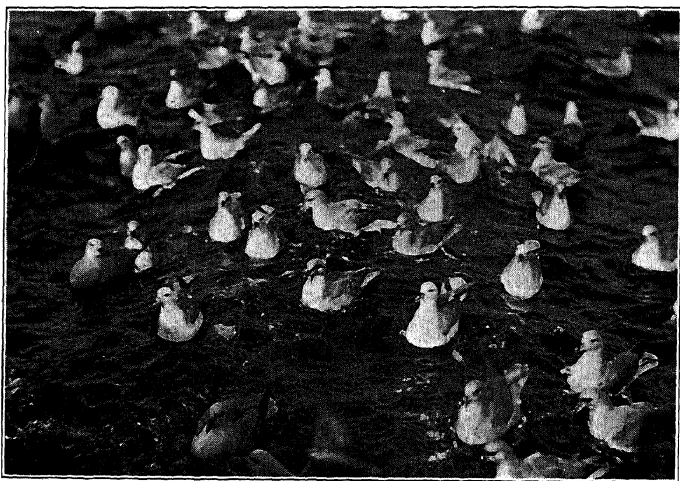
The midnight sun on the pack ice. The mounds are the remnants of old pressure ridges

riding gently in a safe anchorage, with the "Fridtjof Nansen," Government patrol boat, and ice breaker, near by, and a large, black ship, the "Pionér," with a smaller steamer, the "Klem" beside her, less than two hundred yards to port.

The cliffs on this side of the Island supply nesting places for myriads of birds every spring, and

the air was fairly alive with gulls and auks. They varied in size from sandpipers to burgomasters, and in color, from beautiful, silky, ivory-colored gulls to tiny, coal-black guillemots, with red legs.

Shortly after breakfast, we rowed over to call on the "Pionér." She was a "mother" whale ship, from Oslo, with Captain Borge Iversen in command. The

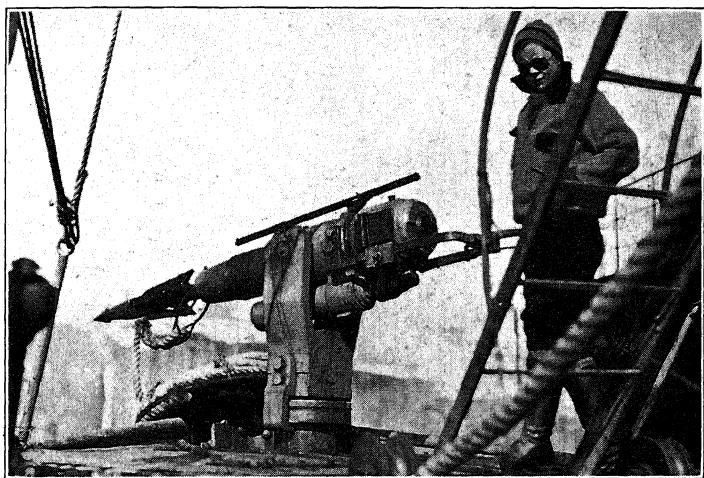


The gulls were always hungry, and on the alert. They were very tame, and we captured many with a hand net

"Klem" was one of three whalers working out from the mother ship. She had brought in a whale, a seventy-foot finner, during the night, and the big fish was moored alongside, ready to be hoisted aboard the "Pionér," when we arrived. The "Klem" and her sister boats are fast little steamers, able to make fully twenty knots an hour. Like the

"Pionér" they are equipped with wireless, and as their hulls are of steel, they must keep clear of the ice.

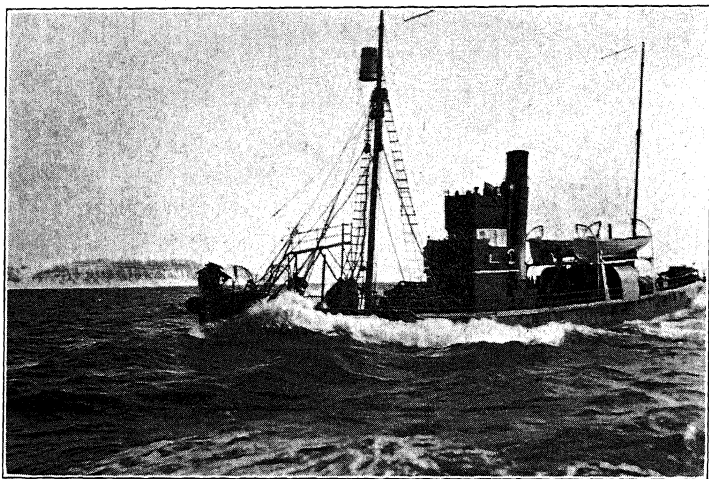
The whale gun is a murderous-looking four-inch weapon, shooting a dart-like projectile weighing 70 kilos (about 165 pounds). The guns are fairly accurate up to fifty yards. In the tip of each of the



Emmy Lou tries her skill at the breech of a modern whale gun. The bar on the top is the "sighting bar." The projectile is a huge harpoon, with an explosive tip.

harpoon projectiles is placed a bomb, which is fired by a time fuse, the fuse being ignited as the projectile leaves the gun, the bomb exploding ten seconds later. A one-inch rope, two hundred feet long, serves as a harpoon line. The big gun is on a pivot, in the bow of the boat, and is manipulated and fired

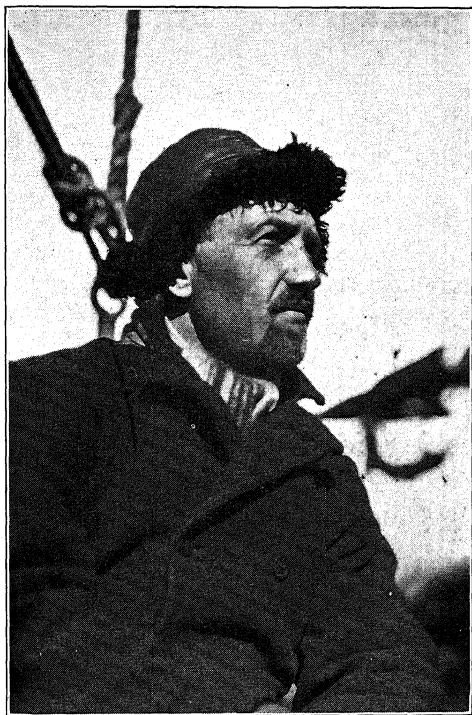
by the commander. Once made fast to a big "finer," many of which weigh from eighty to one hundred tons, you can imagine the excitement on board the little craft. Sometimes the fish tows the boat for six or eight hours before a second or third shot permanently ends the battle.



A small whaler, the "Klem," going into action. These boats are about eighty feet long, and very fast

The "Pionér" is one of the most widely known ships in the Arctic, and Captain Iversen, who speaks excellent English, proved an ideal host. We watched them haul aboard and dismember their latest victim, and the speed and facility with which this was accomplished was little short of astounding. As in the packing plants at home, the only thing lost is the squeal, and as whales are speech-

less, in this instance, everything was saved. Emmy Lou climbed all over the ship, and she and Captain Iversen quickly became the best of friends. Dick was kept busy, as usual, collecting stray odds and



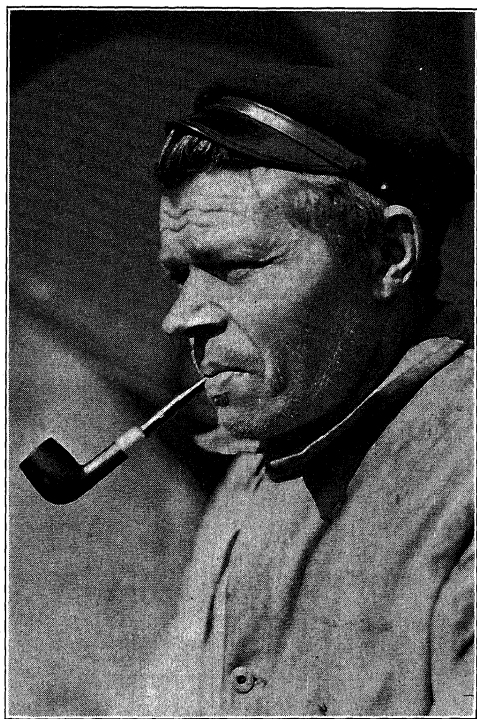
The Captain of one of the smaller whaling ships. He was an expert with the harpoon gun

ends for laboratory study, and my wife and I visited with the officers and men, and secured a large number of interesting photographs. Despite the character of the work, the "Pionér" was scrupulously

clean. The men, most of whom were under thirty, appeared well fed, and contented. They had been out two months, and many of them sported luxuriant crops of fine, red, curly whiskers. I asked one of our quartermasters, a sun-browned, keen-eyed youngster of twenty, about it. "Nearly all of us do that when we first go to sea," he said, contemptuously. "But after our initial cruise, we try to keep clean and look decent. It is like a continental tourist wearing Lapp furs on a shooting trip. Only the green ones do it." At one time, I had seriously considered a pair of reindeer pants for myself. I was grateful that the dealer and I lacked two kroners of coming to an agreement.

On our way north, from Bergen, we were constantly looking for Norwegian phrase books, and similar educational aids. If Dick could learn Kiswahili in two months, why couldn't bright young folks like his parents and his little sister master a simple Scandinavian tongue in a fortnight? But the more we studied our primers, the more complicated the language appeared to be. Fortunately (or unfortunately!), our cook, and four other members of our crew, spoke English. So Emmy Lou and I decided it would be simpler and easier for us to teach the rest of the men English than it would be for us to master Norwegian. And this we did, with some degree of success. Confidentially, we depended mostly on sign language.

We returned to the "Isbjorn" about noon, our boat loaded down with curios, and sundry and divers bits of whale for future microscopical study. Captain Iversen gave us several pounds of fresh whale

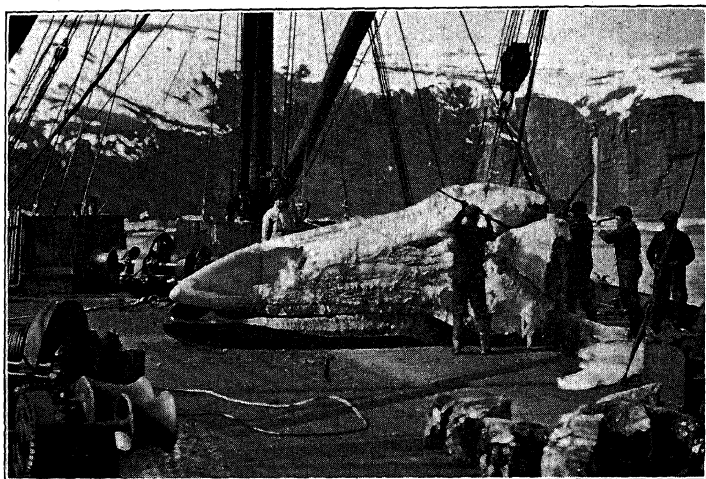


The engineer of the "Pionér." He had been an Arctic whaler for more than twenty years

steak. It tastes very much like beef. That afternoon, we investigated the rookeries. The sight is indeed an extraordinary one. The cliffs are high, from five hundred to fifteen hundred feet, and in

many instances their faces are perpendicular, or even overhang the sea. On every little shelf or even the tiniest protuberance there sat a guillemot, and beneath every other little guillemot lay a green and black mottled egg.

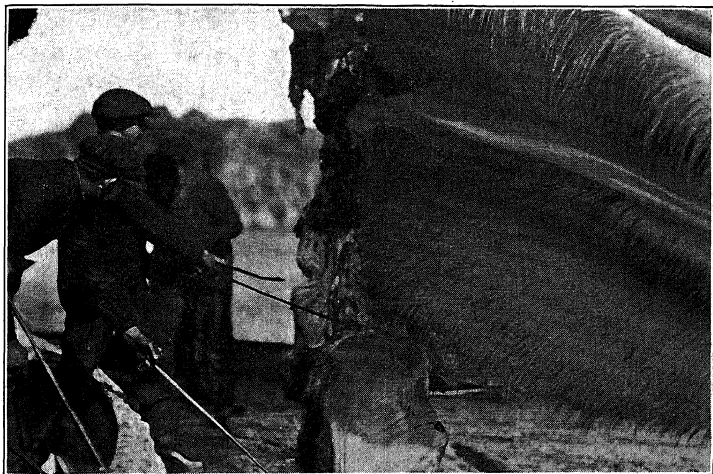
The eggs were almost as large as the birds themselves. The period of incubation is twenty-one



The head of a small finner whale. Many pounds of whalebone were secured from this specimen

days, and between the temperature, the snow, which lay everywhere, the foxes, and the greedy gulls, always on the lookout for an unprotected "nest," it seemed to me that the chances for failure were at least a hundred to one. Every bird has its mate, and it is very interesting to see them change watch. The relief bird sidles up, the sitter slides off, and

in a fraction of a second the precious egg is again incubating beneath a soft and warm feathered breast. Of course many of the eggs are broken every season, but apparently many more of them hatch, for one sees hordes of little auks everywhere in the Arctic.



Removing the whalebone from the mouth of a whale

In visiting rookeries, and examining cliffs, care must always be exercised. Sometimes, and without warning, huge masses of rock break off, and tumble into the sea. If a boat happens to be in the way, it is just too bad. Many egg hunters, and every sailor is by choice such a collector, have been injured by falling from the cliffs.

I thought we should experience difficulty in getting used to the constant daylight. On June 6,

when Emmy Lou killed her first bear, the dead beast was hoisted aboard, and the photographs made, at exposures of from 1-100 to 1-50 of a second, at 1:30 A.M.! But we quickly became used to it. Our friend, Dr. Stefansson, had told us that if there was any excitement on hand, sleep would trouble us but little, and the truth of this assertion



Sawing up a whale on board the "Pionér"

was borne out by the statements of everyone with whom I discussed the matter. Apparently, the sunlight acts as a stimulant, and the natives naturally sleep much less in summer than in winter. In the coastal towns, everyone appeared to be on the dock, no matter what the hour of our arrival.

Personally, I am old and methodical, and the sign, "In at 9, out at 6," over many kodak stores has

long been a favorite motto of mine. In consequence, my habits underwent little if any change. But it was always an effort to get the young folks to go to bed. At first, the excuse was a desire to stay up and photograph the midnight sun. When this was worn threadbare, it was a plea to indulge in "one more game" of cribbage, and as their mother is also a night owl, I finally gave up in despair.

The radio station is located at the northeast point of land, near the site of a now deserted coal mine. I have seen many lonely and desolate lighthouses in my time, but never one so desolate that I would swap the job of keeper for that of a radio billet on Bear Island.

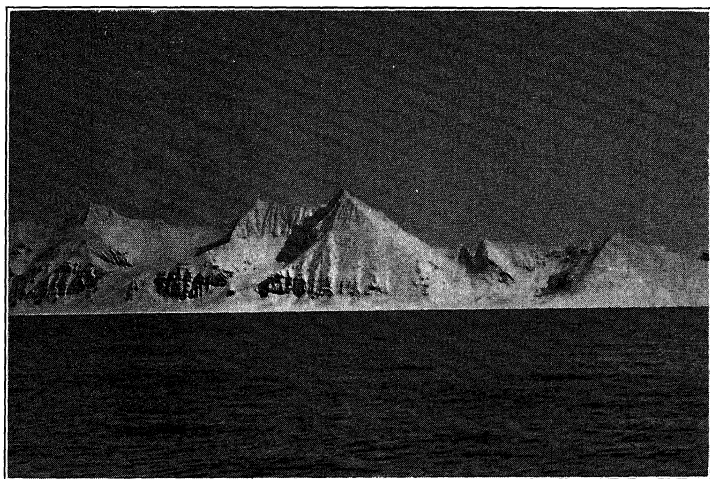
SPITSBERGEN

IN REALITY, Spitsbergen is not a country, it is a state of mind. When explorers and hunters and trappers grow to feel that they can no longer put up with the tawdry trappings of modern civilization, they remove temporarily to this land of splintered peaks and icy bays, and after a season of association with its mountains and glaciers and mists and sunshine, they usually are glad to return to motor cars and aeroplanes and radios, with a little jazz and a few rattling street cars thrown in, for good measure.

Spitsbergen, not Spitzbergen, for the name is Dutch, was discovered by Barendszoon and van Heemskerck, in June, 1596, while searching for a northern route from Holland to China. The name means "pointed mountains," and is a very appropriate one, for if ever a land abounded in needle-like crags, that land is Spitsbergen.

We left Bear Island early on the morning of May 28, and after breasting a very rough sea (with its consequent disastrous effect on our tourist personnel) for twelve hours, we sighted South, or Lookout, Cape. We had hoped the coast line would afford some protection from the wind, but it did not, and it was not until we were opposite Goes Bay, and Hedgehog Glacier, that we again began to feel seaworthy and comfortable. The scenery along the

west coast of Southern Spitsbergen is beautiful and impressive, particularly in May, when the snow and frost on the mountains make them glisten and scintillate like the frosted ornaments on a Christmas tree. They at first seem artificial and unreal, but when one realizes their size—the plateau lying between Roebuck Land and Markham Glacier has

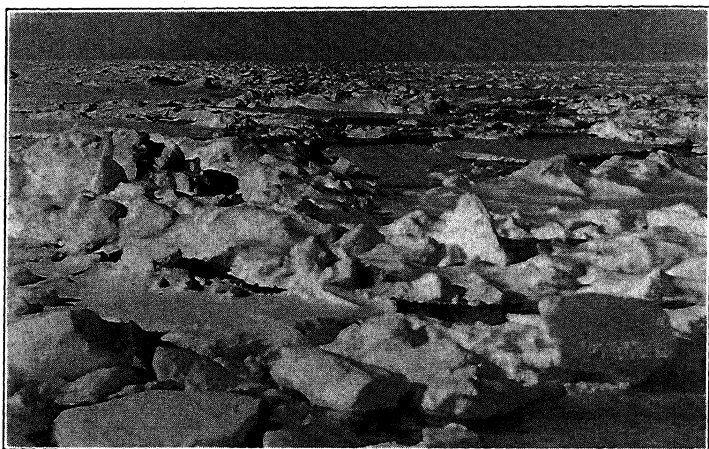


Spitsbergen ("pointed mountains") gets its name from the sharp peaks that dot the coast line. Some of these mountains are more than two thousand feet high.

an elevation of forty-five hundred feet!—one concludes that they are realities, after all.

The west coast of Spitsbergen has been familiar to navigators and whalers and sealers for more than three hundred years. There is no native population, even a Samoyede would find life difficult here, but

hardy seamen have combed the bays and inlets until very little game of any kind is now left. The Norwegian Government has stocked the island with reindeer, as a sort of preserve, but inasmuch as a legal loophole exists, for the benefit of supposedly starving castaways, the animals are as wild as March hares, and it is practically impossible to find them, let alone successfully photograph them.

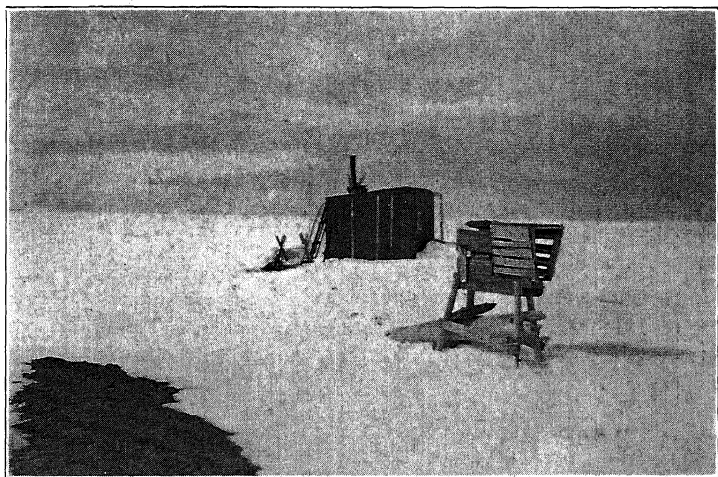


A rough ice field. It is almost impossible to walk on ice of this sort

Cape Lyell and Bell Mountain, so named because of its shape, mark the entrance to Bell Sound. East and slightly north of Bell's Sound lies Lowe Sound, a small body of land, Axel Island, serving as a sort of barrier between the two sounds. Middle Hook is located a few miles south of the southern extremity of Axel Island, and it was here that Sivert

Brakmo, of Vardo, and a boy of eighteen, from Vesteralen, wintered alone in 1893.

Brakmo was an acquaintance of our guide, Ernst Sorensen, and it is to Sorensen that I am indebted for the story. It illustrates the hardihood of Norwegian seamen.



A hunter's cabin with a trap gun in the foreground

Brakmo and the boy sailed in an open boat from Vardo, Norway, to Spitsbergen, in July, 1893. During the voyage they encountered a storm from the northeast, and hove to for sixty hours. After thirteen days, they arrived at Stor Fjord, on the east coast of Spitsbergen. Later, they rounded South Cape, and came to Ice Fjord, where Brakmo had a larger boat which he had used for white whale fishing the previous year. White whales are valuable

commercial fish, from twelve to sixteen feet long, and are caught in huge nets. Here arrived also the German tourist ship, "Admiral," with a whaler as consort. They had a whale, which they gave to Brakmo. With some seals, reindeer, and the blubber of the whale, Brakmo now had a full catch, and having obtained some materials from the Swedish store-



A rude pine coffin, which had been dug up by the bears, and its contents devoured

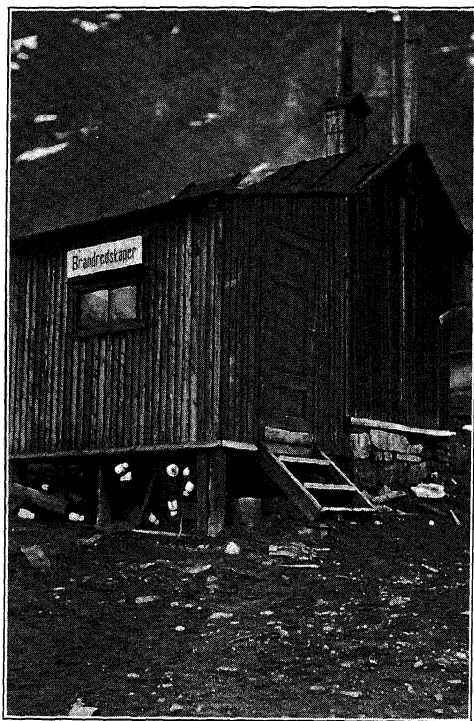
house at Middle Hook, they put out to sea, homeward bound. All went well until they sighted the Norwegian coast, some five miles off North Cape. Here they were becalmed for many hours, and in a heavy swell, some of the supports in the boat broke, the blubber gliding to one side, and nearly upsetting the craft. While they were endeavoring to

shift the blubber, another storm arose, and their rudder was lost. Brakmo rigged a steering oar, but as the wind was contrary, they were obliged to sail north again. Seventy-two hours later, Bear Island was passed, and the two men decided to make for Spitsbergen, to repair.

They reached Green Harbor, and repaired their boat, and again put out to sea. Meanwhile the pack ice had filled the fjord, and they were forced ashore. The ice now covered the whole fjord, and wintering was inevitable. They stayed aboard until the middle of November, and twice tried in vain to reach Middle Hook, across the ice. At last they succeeded, on November 21.

The storehouse, of course, was deserted, it was used only in summer, and was bare of provisions. They had with them only a reindeer calf. Of ammunition they found only some blasting powder. Out of a piece of hard wood they whittled bullets. They had no matches, but made fire by putting small pieces of cotton cloth into the gun muzzle, and shooting into a pile of shavings. From November until July, the men lived on reindeer meat and melted snow. They went to bed at nine and got up at six. They spent their time in hunting, and other useful occupations, and were always in good health and with good courage. The fifth of July, they again returned over the ice to Green Harbor, but found their boat damaged, the meat barrels broken, and all the ropes gone. They also missed

some of the clothing, blubber, and other stores. Captain Edward Johannsen found them here, and supplied them with necessary equipment. He also informed Brakmo that the English yacht, "Saide,"



The fire department at Longyear City

had regarded the boat as an abandoned wreck, and had taken the missing articles. After spending one month in repairing the boat, they sailed it to Middle Hook, and taking on the winter's catch, put out

to sea, and arrived at Tromsö on August 25, 1894. Sivert Brakmo made his last voyage as skipper in 1930, and died last year in Tromsö, at the age of eighty-two years.



Husky puppies, at Longyear City, Spitsbergen

At 78° N., our course was directed east by north, toward the mouth of Ice Fjord and Advent Bay.

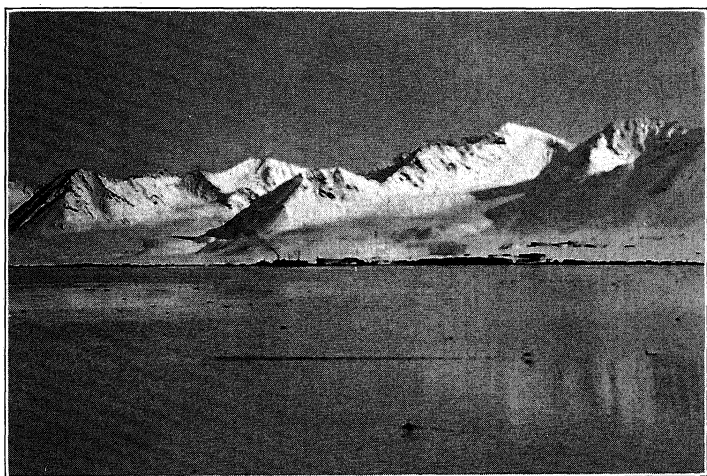
Cape Staratschin, where the famous old Russian hunter and trapper spent thirty-two lonely years,

lies to the right, and Foul Sound, noted for its dangerous, rock-imbedded channel, ten miles to the north.

The coal mines, worked by both Norwegian and Russian labor, are located on the south side of the fjord, and extend from Reindeer Hill to Advent Valley, where the little village of Longyear City stands. It was named after an American, an official of the Arctic Coal Company of Boston.

At present, this frontier metropolis is not in very prosperous condition, although the city officials, and particularly the postmaster and the manager of the mines, were very courteous and hospitable. When I met them, shortly after our arrival at 10:00 P.M., they were having a social chat in the manager's home, and enjoying the contents of a bottle of "aqua vit," a popular Norwegian beverage which in many respects resembles "tequile," a very athletic liquid distilled south of the Border. I had heard of aqua vit, but had never before tasted it. They insisted that I join them, and give them some news of the outside world. Both of them spoke admirable English, and after I had turned over to the postmaster a small bundle, consisting of about a hundred postcards of Emmy Lou's, which she wished to despatch southward, and had received in return a small sack filled with letters and papers for King's Bay, which I promised to deliver on our way north, I was persuaded to take a nip from the social bottle. I found it hot as well as powerful. No wonder they

keep it in glass, it would corrode an ordinary metal container. The manager was anxious to have me take a picture of his charming little son, and I was glad to do so, but when I gazed into the hood of my Graflex, and saw on the ground glass the images of two pink-cheeked cherubs, I hastily pressed the lever, made suitable excuses, and stumbled out into the cool



The "City" at King's Bay, with the "Pionér," mother whaling ship, at anchor

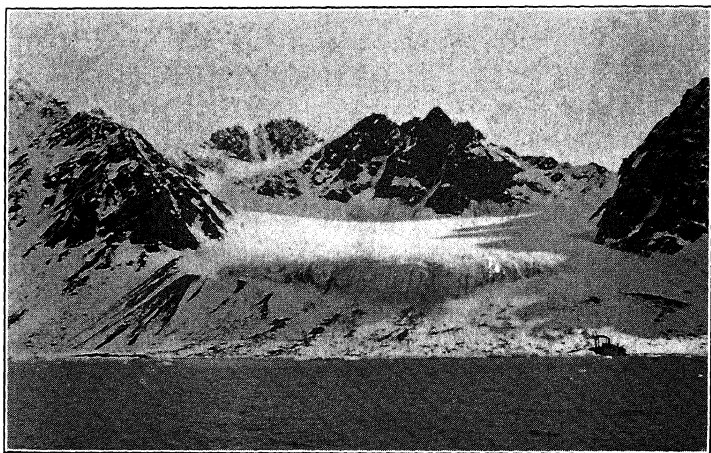
night air. No more aqua vit for me. My training has been wholly inadequate.

It was while we were in Advent Bay that Ernst Sorensen, our guide, told us another interesting story of hardship.

A Norwegian who had spent several years in Spitsbergen, where he had worked in the coal mines,

returned to Tromsö, and married. After some years of married life he and his wife were divorced, and he again returned to the mines. Shortly after this, he decided to remove to a hut on the other side of the Bay, and spend his time trapping foxes, and hunting bears.

Before he left the mine, he was told by his comrades that if he should meet with any misfortune,



A glacier two hundred feet high at Magdalena Bay

such as illness or an accident, he should build a large coal fire in front of his hut as a signal of distress. They could see this, and would at once hurry to his assistance. The place where he went was known as Cape Bheman, on the opposite side of Ice Fjord, and some fifteen English miles from the coal mines. Throughout the winter, the men at

Longyear City thought they sometimes saw a faint glimmer of fire on the Cape, but were not at all sure. Under any circumstances, it would have been practically impossible for them to reach him, as the fjord was filled with a conglomerate mass of bergy-bits, floes, and slush ice. No boat could have crossed it. To go around the adjoining fjords was equally difficult, for it meant a journey of hundreds of miles over the mountains with a sledge, and dog teams. Darkness, and frequent blizzards added to the uncertainty of success. With the advance of spring, the ice cleared out of the fjord, and as the man failed to return, a group of his friends went over to investigate. They found him dead in his bunk, and a heap of cold ashes and half-burned débris outside. Scurvy, the dread demon of the Arctic, had ended his career.

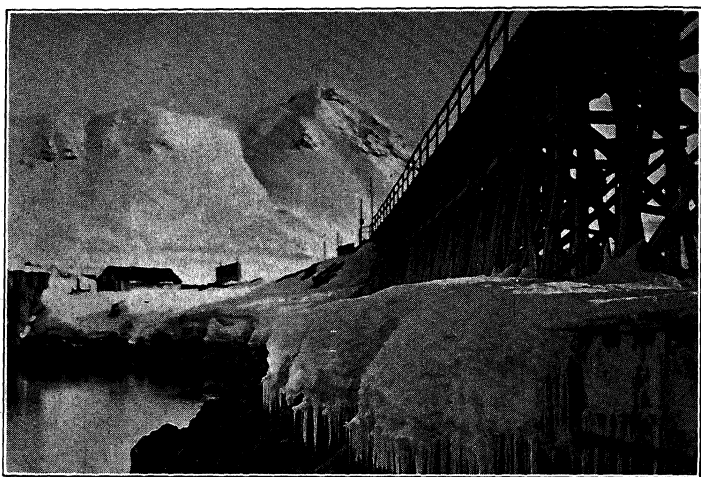
It was found that he had become too weak to prepare his meals, and had placed some food on a near-by table, where he could reach it with a little wooden rake, which they found grasped in his blackened hand. A very heart-rending letter to his children was also found.

The men buried him, and shut the door of the little hut, the walls of which had been the sole witnesses of his sad end.

The tragical incident had one comical side. Some time afterward, a tired and lonely hunter happened along, and found the hut, and slept there for a night. Of course, he did not know the history of

the place. When he reached Longyear City, he told about it, and of how well he had slept. "The bed was very soft, and had an impression in it like that of a man, which suited my body exactly." His face was indeed a study when he learned the facts.

Historic Kings Bay is only sixty miles from Longyear City as the crow flies, but the ship route

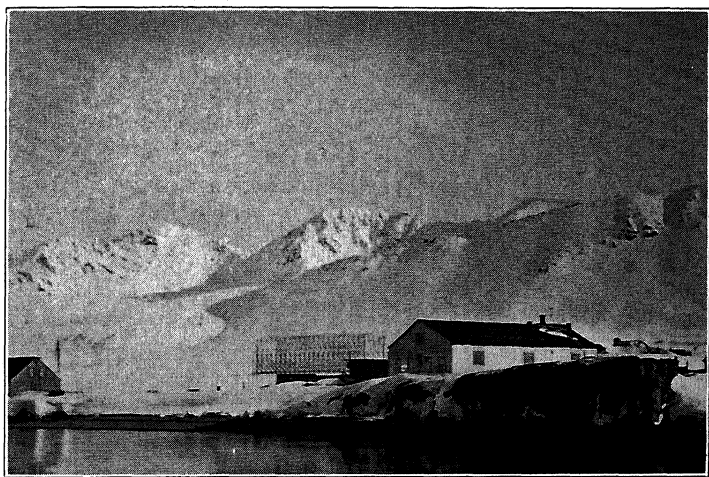


The wharf at King's Bay Harbor

is not the bird route, and by the time one has rounded Black Point and swung as far out as 10° East and safety, nearly half a day has been lost. Afterward, when one has crept up the coast, past Dyer Lag, and Inch Mickery, Cape Sietoe and Vogel Hook, and across the mouth of English Bay, it is nearly supper time. But late evening, on a June day in the Arctic, holds no impediment to a sight-

seer, and as we rounded Quade Hook, the Three Crowns loomed up before us, like huge pedestaled pyramids of silver. One can readily imagine how welcome they appeared to Admiral Byrd on his return from his history-making flight to the Pole.

There is a small coal mine at King's Bay also, but it is of relatively little interest to the visitor



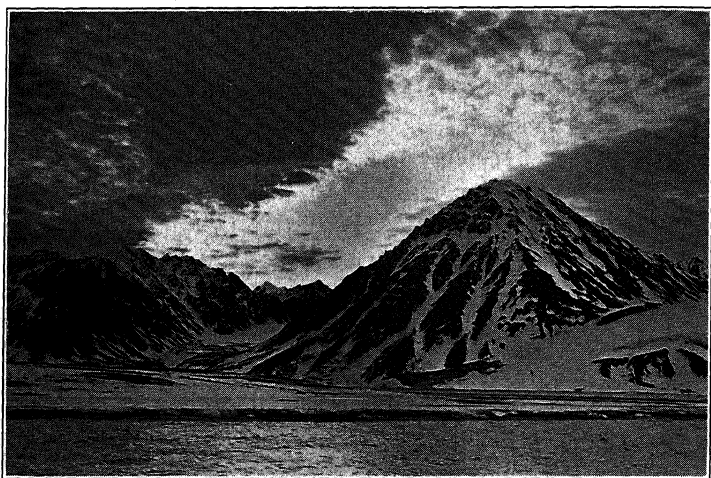
The Amundsen-Ellsworth hangar at King's Bay Harbor

who is familiar with the history of this unique little post on the outermost fringe of civilization.

The hangar used by Amundsen still stands.

A radio operator and an engineer and his wife had been the sole inhabitants of the tiny settlement during the past winter, and as we had brought with us the first mail they had received for nine months, you may be sure they gave us a rousing welcome.

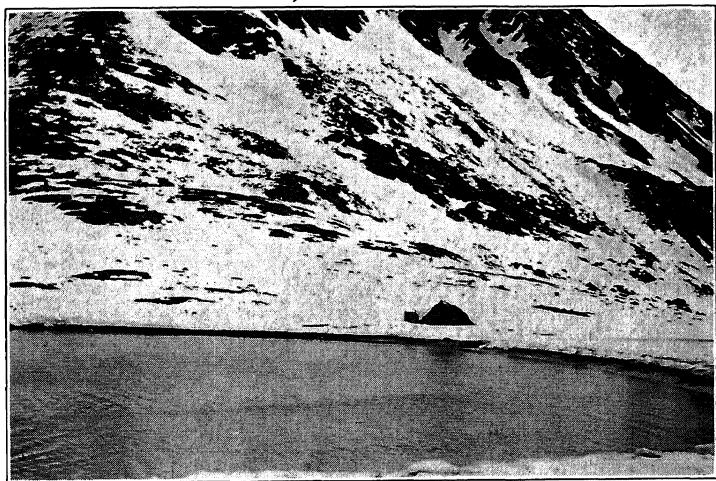
To no one is Marconi's invention a greater boon and comfort than to such isolated people as these, and to the crews of ships at sea. Despite the comparatively great distance which separated us from the world in general, during our entire cruise, we were constantly in touch with Tromsö, and every day Richardson, our operator, a delightful young



In Magdalena Bay, one of the most beautiful harbors in the Arctic chap who spoke and wrote execrable English, typed off a news bulletin for us.

Again shaping our course seaward, we passed Cape Mitre (Scoresby, 1818. Hudson, 1607, called it Collin's Cape), at eleven o'clock. Here Kings and Cross Bays open from a common mouth. Cross Bay looked dark and gloomy and inhospitable. If only we might have visited it in the old whaling

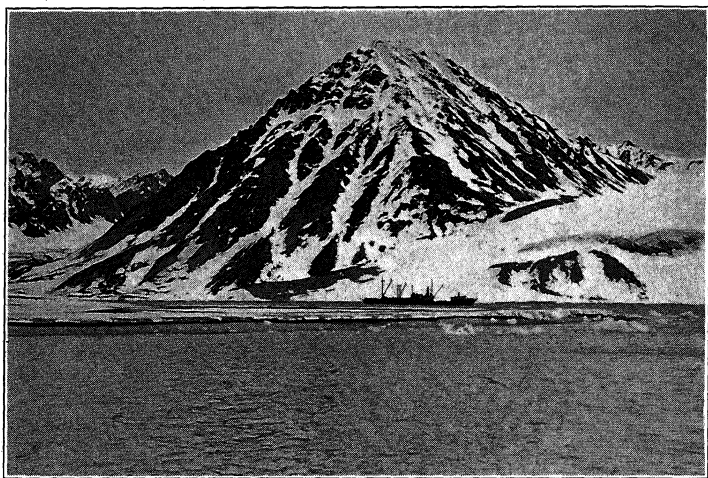
days! Due north for another six miles, past Hamburg Bay, beautiful Magdalena Bay, with Waggonway Glacier a glittering mass of ice, apparently welding it to the mainland, and finally South Gat, the channel so familiar to the old Dutch pilots, leading into Smeerenburg Bay, and so to Smeerenburg, the capital of the whaling industry, three



A trapper's cabin beside a huge cone-shaped rock on the shore of Magdalena Bay

centuries ago! It seems impossible that the masters of sailing ships from Amsterdam and Rotterdam, Middleburg, Hoorn and Delft, should ever have ventured so far north, but when honorable profit calls, few men can resist its pleading, particularly at a time when one might win fame and adventure and riches, all at a single throw.

As Rudmose Brown has said, during Smeerenburg's best days the scene in summer must have been animated. In the harbor, perhaps several hundred ships with their boats out among the whales; ashore, rows of huts, storehouses, smoking cookeries, and furnaces for frying out blubber. At one time the population must have been 1,200 or 1,500.



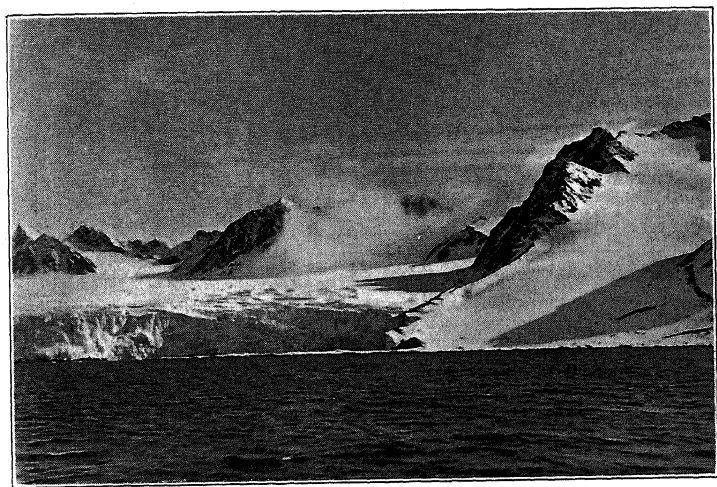
The "Pionér" at anchor in Magdalena Bay

Sir Martin Conway, in his book, *The First Crossing of Spitzbergen*, and James Lamont, a famous sportsman of the '50's and '60's, and the author of *Yachting in Arctic Seas*, also have given us some vivid thumb-nail sketches of the old whaling days.

Apparently the Dutch did not have the cream all to themselves. The Danes gave them some trouble, and finally a fort was built to frighten off these

predatory marauders. Ultimately, the Danes decided to confine their activities largely to Kobbé Bay.

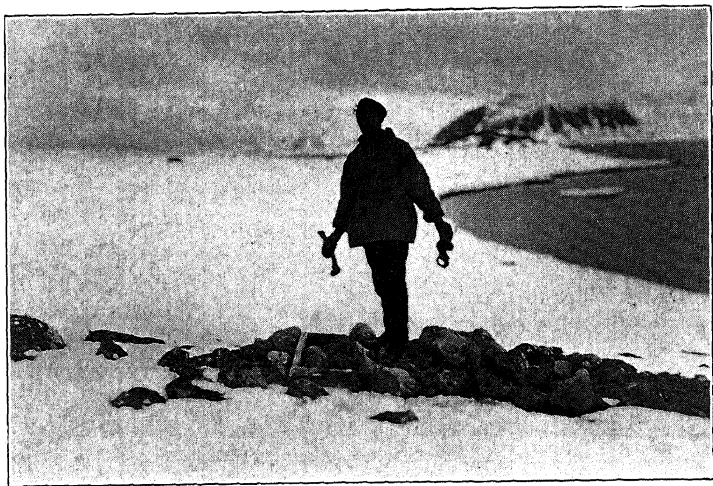
About 1631, the Basques destroyed the Dutch whaling station at Jan Mayen Island, and this prompted the Noordsche Company, which owned Smeerenburg, to take steps to safeguard the outpost during the cold months. Up to that time, so



A glacier near Deadman's Island on the northwest coast of Spitsbergen

far as is known, only eight men, all English sailors, ever had succeeded in defying the rigors of a Spitsbergen winter. These whalers had been sent ashore at Green Harbor, in the fall of 1630, to shoot reindeer. When they returned to the coast, they found their ship gone. They decided to winter in Bell Sound, where there was already a hut, "built of timber and boards very substantially and covered with

Tyles, by the men of which nation it had, in the time of their trading thither, been builded." They managed to eke out their food supply by eating gulls, and foxes which they caught in traps. At one time, when the larder was running low, a bear fortunately turned up. Edward Pelham, a gunner's mate, and chronicler of the tale, says "with our hearty lances



Ernst Sorensen discovers an open grave near Welcome Point. The bones were reinterred, and covered with rocks

we gave her such a welcome that shee fell downe, and biting the very snow for anger."

As a result of the resolution of the Noordsche Company, a number of men, under the command of Jacob Vander Brugge, volunteered to spend the cold season of 1633-34 on the peninsula. At that time, the cause of scurvy was not known, but it must

have been suspected, for the little band played safe by eating plentiful amounts of fresh meat, and scurvy-grass, and did not lose a man.

Scurvy-grass is the broad, succulent leaf of *Cochlearia fenestrata*, and grows abundantly in some parts of Spitsbergen. In Matoschin Schar it has long been used by explorers as a prophylactic against scurvy. To me it tastes very much like denatured spinach. Lamont, who was something of an epicure, as well as a yachtsman, and a sportsman of note, gives a recipe for scurvy-grass salad, which may be of interest to some of my readers:

“Take of

Cold boiled potatoes,
Portugal tomatoes,
 (from tins)
Portugal onions,
Capers and anchovies,
Hard boiled eider duck eggs,

a sufficiency; season to taste with pepper, oil and vinegar; garnish with scurvy-grass, and serve.”

At this time, Smeerenburg is little more than a memory; there remain only a few fragments of roughly cut stone, which mark the sites of the former coppers, or trying vats, and several hundred graves on Amsterdam Island and on Deadman's Island, near by.

In May, with snow knee deep, an icy mantle covering every natural projection, and a cold, raw wind sweeping down from the north, it certainly seemed an inhospitable and eerie sort of place.

Clover Cliff lies $79^{\circ} 50''$ North, and 11° East, and from here, eastward, and north as far as the pack ice will permit, the shooting grounds extend. The northern coast of Spitsbergen is marked by a multitude of small bays and inlets.

We reached the Norways on June 1, and a day later, on the 80th parallel, Emmy Lou killed her first bear.

After that, our course, as sketched in on the chart, resembled a tangled skein of yarn more than anything else. We would run up as far as possible, to the edge of the pack ice, and work along the fields, and among the floes until the lanes showed signs of closing, and then race back to open water, and safety. It was a continuous, and serious battle. Once beset, a ship is exposed to all sorts of dangers, and while we were willing to take some risks, we were not seeking trouble.

The "Isbjorn" was adequately manned, and her captain knew his business. Four men constantly were on watch, day and night, and our exact position never was for an hour in doubt.

We visited Welcome Point, where a Swedish trapper has a hut, but, unfortunately, the gentleman was not at home. His name was Sven Olson, and apparently he had a series of camps, four or five

in number, and visited in turn traps set in the vicinity of each. The little house looked clean and well kept. The door was, as usual, not locked. There was a tiny stove, a pile of dry wood, and some bear meat, hung out of reach of the foxes. A notice on the wall, in both Swedish and Norwegian, informed the visitor that he was welcome, but begged



A shore excursion, near Welcome Point

of him not to steal any of the furniture. The sole decorations were the pictures of two Swedish movie actresses. The only reading matter to be seen was a copy of a Stockholm newspaper, dated April 12, 1931.

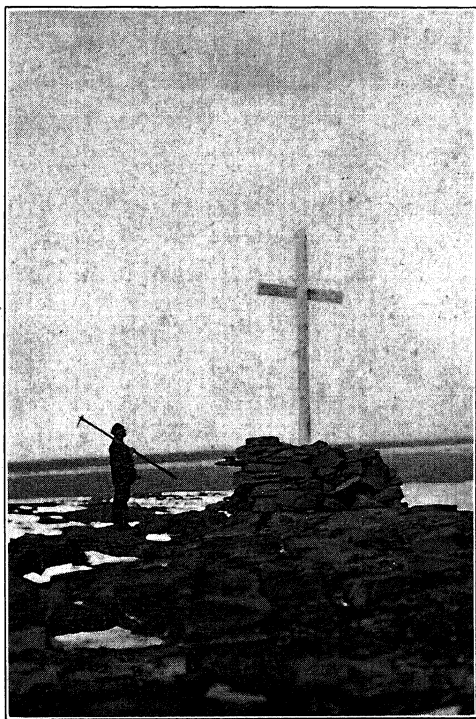
We were very sorry to have missed seeing Mr. Olson, and I trusted he, too, was disappointed. We left a cordial letter on the shelf table, wishing him

good luck. All of us signed it. For once, I was sorry that I did not smoke, and had no tobacco with me. But I did my best, and presented him with a little white elephant. I hope it brings him all sorts of blessings.

In the yard, if one might so designate the foreland of Rennes Peninsula, we found a number of trap guns, peculiar and dangerous contrivances for the slaughter of hungry and inquisitive animals. A wooden box, or chute, with an open mouth, was securely fastened to a platform, two feet high. In the rear end of the box an old .50 caliber Remington rifle action, without a stock, and with all but a foot of the barrel sawed off, was so placed that when the weapon is fired, the bullet will pass out at the open end of the box. Twelve inches from the muzzle of this cunningly contrived and murderous little engine, a piece of meat, attached to a string which passed, in turn, through a wire eye in the rear of the box, and then to the trigger, was loosely fastened. When a "trap" is completed, the gun is loaded, and cocked, the prowling animal does the rest, and receives a bullet through his head for his pains. These gun traps were well marked, and of little danger to human visitors. But sometimes they are not, and our guide assured us that many serious and even fatal accidents had resulted from their use.

On the highest point of the promontory was a rock cairn, probably built for a landmark. I en-

deavored to convince Emmy Lou that it covered a grave, but Captain Bergersen quickly, but of course inadvertently, set her right. A light sledge, in first-class condition, lay beside the house, and there were



Holmgren's cairn, dated 1855, at Treurenburg Bay, marks twenty-nine graves

ski marks on the plain. Apparently Olson did not use huskies, as we found the tracks of only one small dog, paralleling those of its master, in the snow.

Before leaving America, we had hoped and expected to get as far east as Franz Josef Land. The nearer we got to the Pole, however, the more restricted our ambition and expectations became, for we began to appreciate the character and nature of the task before us. We finally decided that if we should reach the Seven Islands, and $80^{\circ} 40''$ North we would be content.

This is great shooting territory, but it is great ice country as well, and during the fortnight that we spent ducking in and out of Hinlopen Strait, I saw more ice and frozen snow than I had ever before thought existed.

Birds

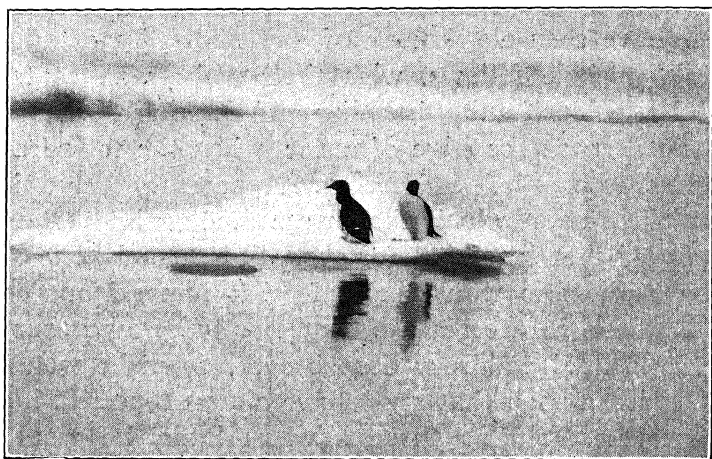


TO THE lover of bird life, Spitsbergen is a paradise. How the creatures manage to survive almost passes understanding, for even in summer, when nature is in her most generous and bountiful mood, living conditions generally are far from ideal.

I have seen a big flock of guillemots, important-looking little fellows, with their white waistcoats, and coal-black suits, bobbing and ducking about in the water, at the edge of a floe, when the temperature was well below freezing. Apparently, the animalculae upon which they were feeding had taken refuge beneath the ice, for every few seconds, one of the guillemots would partially lift himself out of the water, inflate his chest once or twice, and then, after a final and very deep breath, down he would go, with a snap that must have almost loosened his toenails. Two or three minutes later, he would reappear, popping out from under the floe, fifteen or twenty yards from the point where he had gone in. With a net we succeeded in capturing some of the peculiar, semitransparent, locust-shaped coelenterates upon which the birds appeared to be feeding. The water immediately beneath the edge of the ice fairly swarmed with them.

Some of the individual birds are excellent fighters. Once, at South Haven, Bear Island, we were amusing ourselves, feeding the gulls which flocked

around the "Isbjorn." One small gray fulmar petrel was so quarrelsome, and such a good scrapper that none of the others dared dispute the territory he claimed. That little gull certainly must have got out of its nest on the wrong side that morning, for he pecked at every bird and everything within reach. Finally, as a big handful of cut bait and



The guillemots remained in the water until their feet were cold, then hopped out on the ice to warm them

other tidbits came over the side of the boat, and the greedy little rascal endeavored to gobble up all of it himself, a bunch of his comrades, apparently fed up on his unneighborly conduct, "ganged" him, and gave him a thorough trouncing. After that, the little game cock appeared considerably less aggressive.

We had hoped to secure a complete assortment of the thirty-eight or forty species common to this region for the Department of Natural History of the University of Kansas, and with this idea in mind, Dick was constantly on the *qui vive*. Unfortunately, we did not entirely succeed, for while some varieties, as certain members of the gull family,

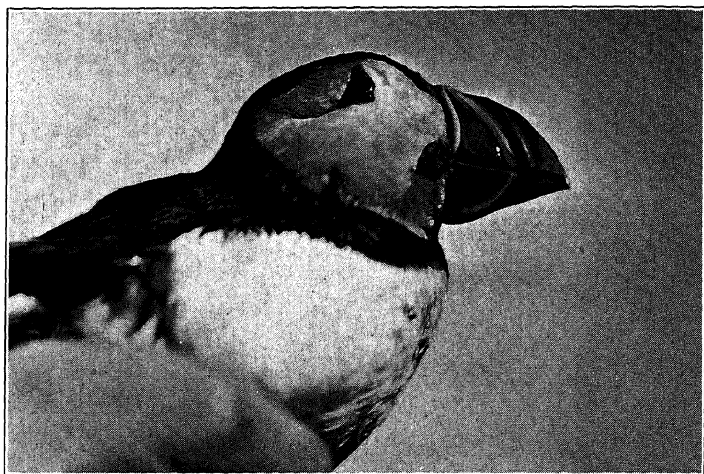


Emmy Lou tries to make a playmate of a petrel, but fails. It refused to love her

are exceedingly numerous, others, as the king eider duck (*Somateria spectabilis*), and the Ross gull, are found only in Nova Zembla. The ivory gull, in my opinion the most beautiful of all, nests on the west coast of Northeast Land, Hinlopen Strait.

When a seal has been killed and skinned, or "flensed," the minute the carcass is deserted, gulls

flock in from all quarters of the compass. The ivory gulls (*Larus niveus*, *glacialis*) with their beautiful plumage, were scarcely recognizable against the snow on top of the floe. As Emmy Lou said, when one saw an apparently bodiless assortment of pink legs stalking about an abandoned car-



A parrot auk, a handsome but saucy little bird

cass, then you knew that the ivory gulls had arrived.

Next to these birds, the eider ducks, and especially the males, probably are the most attractive. These birds nest and hatch and raise their young on the rocky islands near the coast. One never finds an eider duck far out at sea. The island may be located quite near the mainland, but it must be isolated, for if it is not, the cunning foxes quickly

find the nests, and raise havoc with the birds and their eggs. Sometimes an island will accidentally become connected with the shore, as by a wedged floe. If this occurs, sly Reynard takes advantage of the temporary bridge, and that particular island will for years afterward be avoided by the eider ducks.

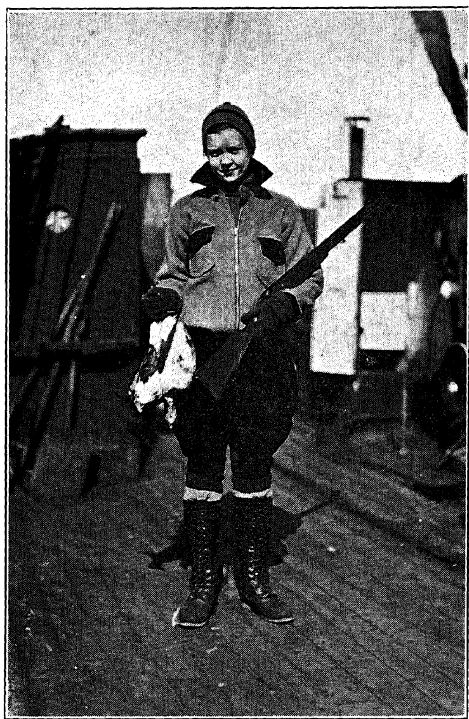


Hunting natural history specimens on the shore of Northeast Land

The bears also are very fond of both the ducks and their eggs. It is a comical sight to see a huge polar king shovelling eggs, fresh, semi-fresh, and otherwise, into his capacious maw.

Kittiwakes, graceful, and as swift as an arrow, are plentiful, and swallow-like arctic terns are seen everywhere.

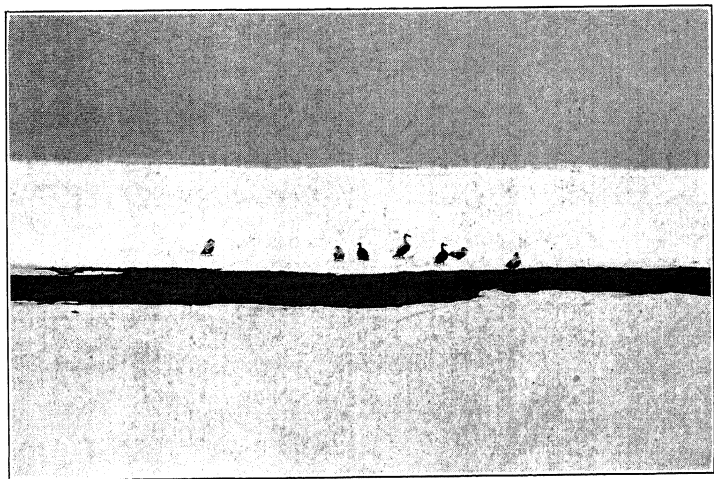
The big skua gulls are dark grey in color, and appear always to be hungry. They will swallow anything edible, provided only that it is free and unattached.



Emmy Lou quickly became an expert with the little Sauer twenty-bore over and under shotgun, and kept all of us provided with guillemots for the table.

Emmy Lou loves birds, and when we were at anchor a flock was constantly on hand. She sometimes played jokes on the greedy rascals. She

would take two bits of meat, and attach them to the ends of a four-foot bit of string. Then she would feed the separate baits to two different gulls. Neither bird would swallow the meat until it came loose from the string, but the pair of them would squabble and fight and struggle in the air for minutes at a time, much to the delight of their kind benefactor.



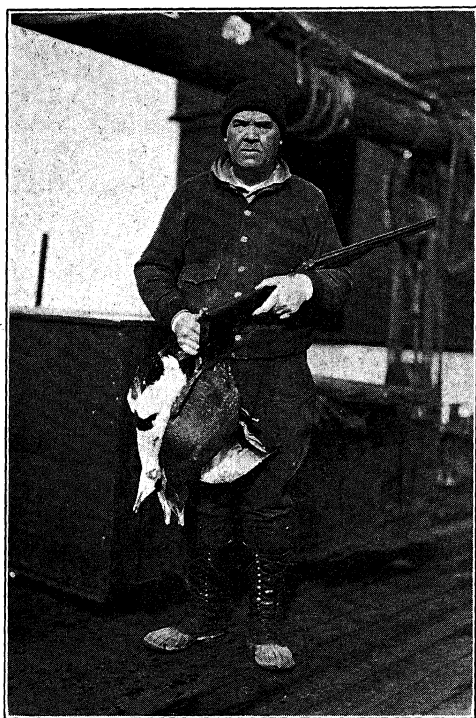
Eider ducks, at Moffen Island. The black and white ones are the males

It is in the vicinity of a mother whaling ship that the gulls enjoy themselves most.

A hungry bird will gorge itself until it almost bursts, and finally float about, looking quite droopy and ill. Nature has blessed them with a marvelous digestive tract, however, and in fifteen or twenty

minutes, they are entirely recovered, and ready for a second helping.

The black guillemot (*Uria grylle*), and the common guillemot (of the Genus *Alca*) are to be seen



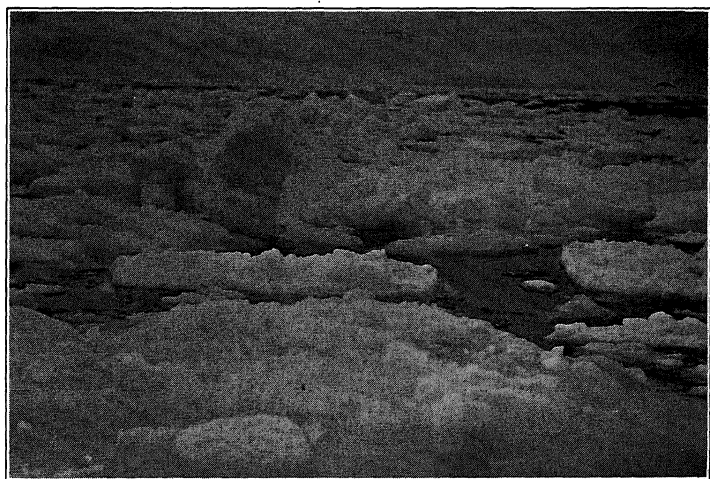
Eider ducks taste delicious when the food supply begins to run low in great numbers, and both are excellent eating. We killed quantities of them for the table.

Little auks resemble baby guillemots, and for a long time Dick mistook them for fledglings. But

their speed, and skill at diving, aroused his suspicions, and ultimately led to their undoing.

The sea parrot has a very ornate pink beak, but this is about the only thing it possesses to recommend it.

The burgomaster gulls (*Larus glaucus*) are the largest birds we found. They are beautiful, and



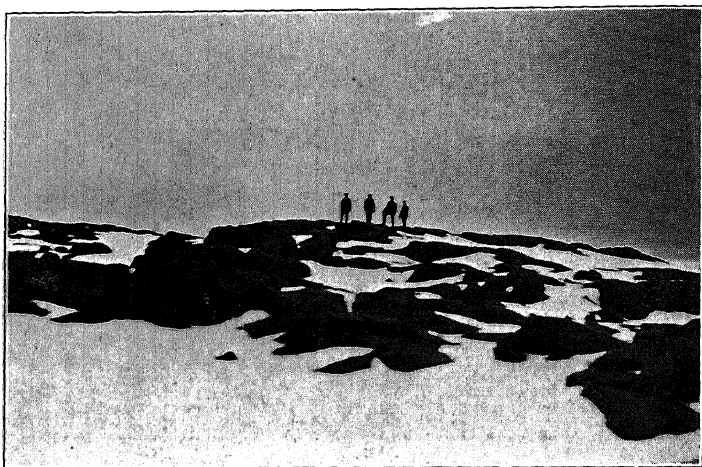
Small floes, in Wiide Bay, on the north coast of Spitsbergen

have a wing spread up to five feet or more. Like their smaller brethren, they are quarrelsome, and it is not at all unusual to see a big burgomaster attack a smaller gull high in the air, and make it drop its food. The victor then swoops down, and captures the prized morsel.

Of the shore birds, the arctic owl is one of the most striking in appearance, but is rather rare. We

succeeded in securing a pair of turnstones, long-billed, snipe-like little fellows, which resemble kill-dees.

Nesting havens, or rookeries, are found on nearly all of the coastal cliffs, particularly at Bear Island. The number of birds that congregate here is almost incalculable. As Dick said, there were "jillions" of them.

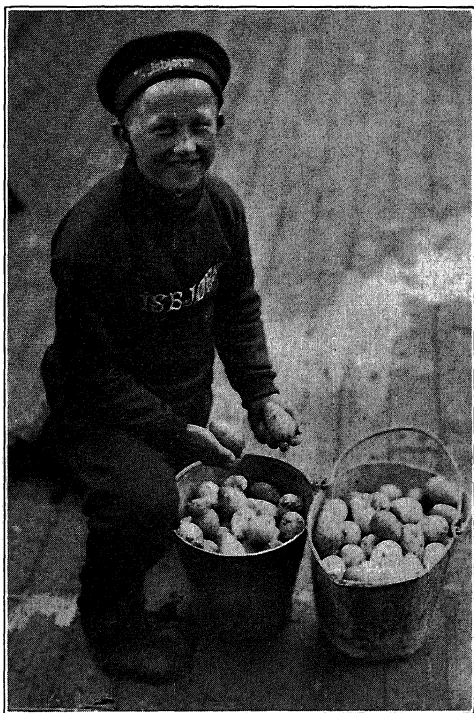


Hunting birds' eggs on Moffen Island, near Hinlopen Strait

They do not especially fear man, and in visiting their nesting places, we were always careful to disturb them as little as possible. Their courage and faith win one's heart. It must be difficult enough to sustain life in such a climate, let alone raise and educate a family!

The cold appears to trouble them very little. When a guillemot becomes chilled in the water, it

hops out and warms its feet on the ice. By the time its circulation is re-established, and its blood pressure back to normal, it is again hungry, and into the water it dives.



Our cabin boy counts the eggs brought back from an "egg hunt" on Bear Island

When it comes to self-defense, the black guillemot can whip its weight in wild cats, and the gulls leave the guillemots strictly alone. We once tried to make a pet of a slightly wounded guillemot. It

was a coal-black, slick, beady-eyed beauty, with a snowy waistcoat, and a beak not unlike that of a common raven. After fiercely striking at every animate thing within reach, it finally seized my young son by the finger and refused to let go. We finally pried it loose with a crowbar. After that, I am sorry to relate that he wrung its neck, and



An eider duck's nest. These eggs are laid and hatched, often within twenty feet of a snowdrift

afterward added its skin to his museum collection.

Strange to say, a gull finds it very difficult to take off from a hard, flat surface. Occasionally, we would capture one in a net. When placed on the deck, it was comparatively helpless. It would run back and forth, like a frightened chicken, but not until it was lifted into the air could it use its wings to advantage.

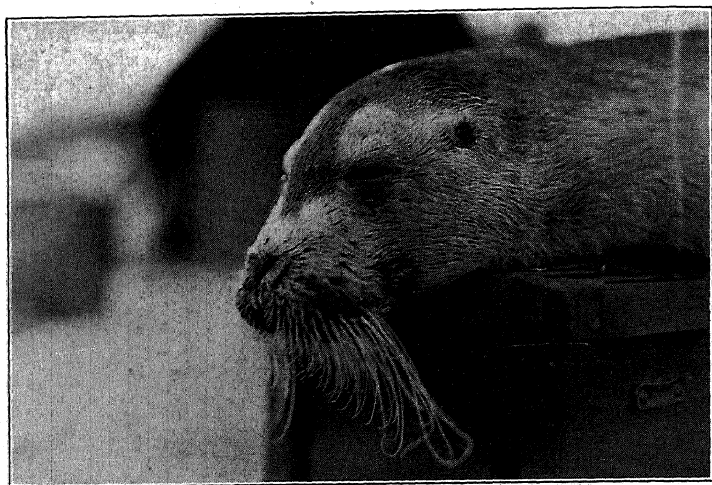
SEALS



THE commonest seal found in Spitsbergen and Franz Josef Land is the *Phoca annulata*, or "snad." This charming little creature, with its plump body, and round, intelligent-looking, puppy-like face, makes its home among the floes, and sometimes, on a warm, bright day, hundreds of them can be seen, disporting themselves in the water, or napping on the ice. The word "napping" is used advisedly, for they, like all seals, appear never to sleep longer than a minute or two at a time. A brief period of slumber, and then the inquisitive little head is again raised, and the animal cautiously and methodically inspects the entire horizon, not unlike a wise-looking prairie owl. Its eyes are large, prominent, and intelligent looking. If the coast is clear, and no danger threatens, the seal promptly drops off to sleep again, only to awaken, with clocklike precision, at regular intervals.

Its great enemy is, of course, the polar, or ice, bear. The bear is just as intelligent and wary as the snad, and as its appetite, which is tremendous, must be appeased if the bear is to live, this game of wits is an interesting one to an unprejudiced observer. Personally, my sympathy has always been with the seals.

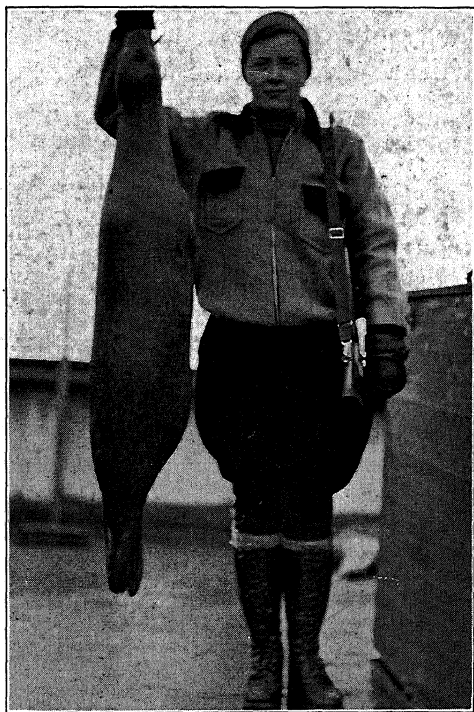
When we were at rest in a quiet stretch of water, the little fellows would swim up almost to the boat, and stick out their heads, as if to enquire what it was all about. A seductive whistle will coax them close to the side of the ship. Occasionally a particularly curious one, very probably a lit-



A small bearded seal

tle flapper snad, will bounce almost out of the water in its efforts to satisfy its curiosity. Nature has equipped them with two front flippers, placed just forward of amidships, and a pair of peculiar pentadactylate rear flippers which they can use gracefully and well. They are rapid and powerful swimmers, and can get under way in a fraction of a split second.

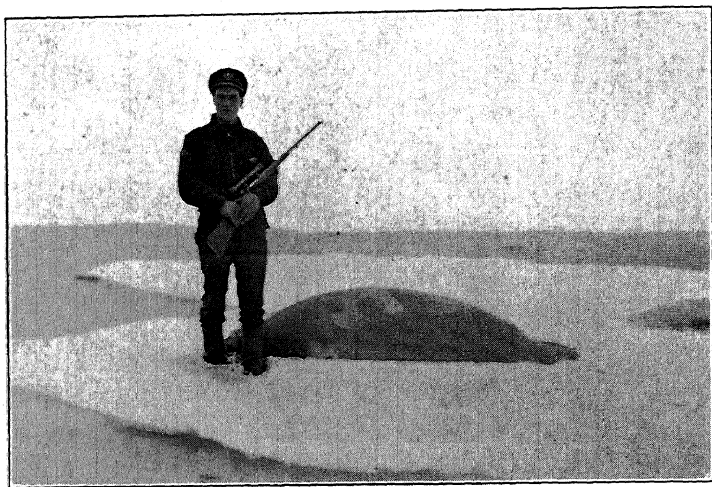
Like their cousins, the *Phoca barbata*, or bearded seals, they spend much of their time in winter asleep on a sort of cornice or shelf, deep in the ice, alongside their breathing holes. These openings,



Emmy Lou starts in to replenishing her wardrobe, with the skins of a few *Phoca annulata* ("snads")

which lead to the surface, are made when the ice is quite thin, in early fall, and methodically kept open as each new layer of water freezes. The openings are roughly circular in outline, and about two

feet in diameter. When the sun is shining, the plump little chaps lie dozing on the ice, conveniently poised for a dive. The instant danger threatens, presto! down go their heads, up go their tails, and they vanish like a flash. Their coats are gray, with circinate or gyrate markings, as if the animal was afflicted with a chronic case of erythema multiforme.



Our skipper shows us what he can do with a 9.3 mm. Sauer Mauser at two hundred yards. The trophy is a five-hundred-pound bearded seal.

Sometimes the alert little fellows actually seem to possess a sense of humor. Repeatedly, when we were pursuing, or fighting with, a bear on the floes, I have seen half a dozen snads watching, and from time to time apparently nodding their heads, as if

in approval, or to cheer us on to battle. They certainly are attractive and entertaining little beasts.

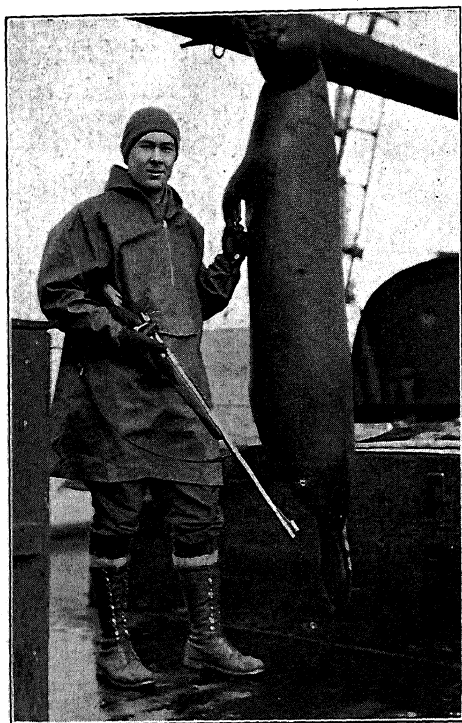
The top of the breathing hole is funnel shaped, and is worn smooth by constant use. But immediately after a snow, or on an old or loose floe, which has been abandoned, these snad holes may prove a menace to a human pedestrian. I have seen num-



Mrs. Sutton decides to adopt a handsome little "snad," but relents, and returns the baby seal to its mother

bers of our own crew inadvertently step into one, and the experience is one that is not to be coveted. Usually, when a man traverses an ice floe or field, he carries with him a sort of alpenstock, called a "haak-pik." A haak-pik is a peculiar implement with a head which is a sort of cross between a tack-hammer, and a light, one-sided pick axe. The han-

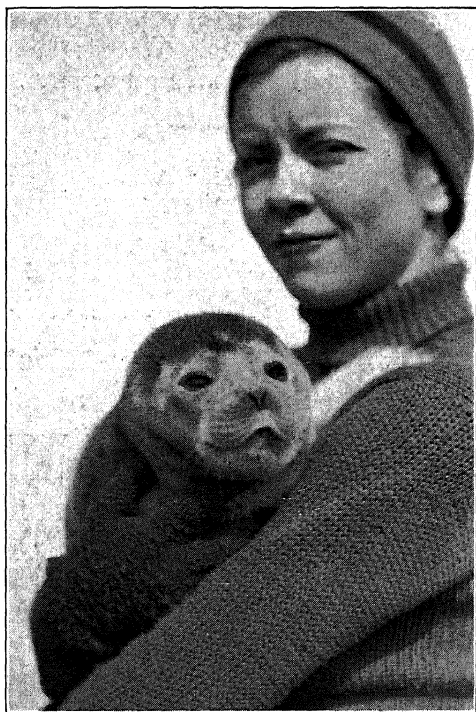
dle is seven feet long, and of thick, white pine, so that it will float if it falls overboard. The tack-hammer-like projection on the back of the head is for sealing, and the pick-shaped claw serves a multi-



Dick poses with his first young *Phoca barbata*

tude of purposes. A rope loop or grummet is generally threaded through the rear end of the handle. A haak-pik is to the arctic sailor what a "coupe-coupe" is to a Moi tribesman, or a machete to a Cuban laborer. He seldom steps on the ice

without one in his hand. And the casual visitor, if he is wise, will follow this practice. The form of the haak-pik, like that of the modern harpoon, is a result of centuries of practical thought, and its



This little seal was very peppy and excitable. He reminded one of a small and well-fed puppy

shape and proportions could hardly be improved upon.

Hooded seals, *Cystophora cristata*, are comparatively rare in Spitsbergen waters, but fairly com-

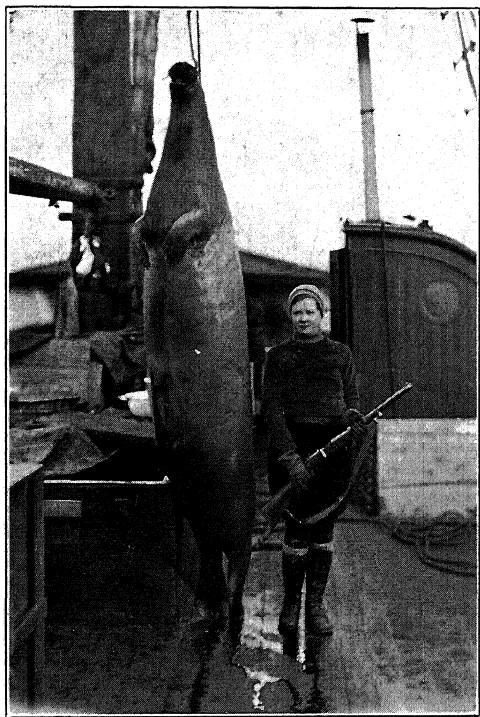
mon in some parts of Greenland. The adults are quite large, from 300 to 800 pounds, and the males have on their heads a sort of distensible hood, which protects them from all ordinary trauma. A butting match between two elderly gentlemen hooded seals should draw a record crowd, for the brutes are tremendously strong, and at times quite savage. "Blue backs" are young hooded seals.

The Greenland seal (*Phoca groenlandica*) is the one which the ladies most admire, for it is this variety which supplies us with a valuable skin of commerce. "White coats" are very young Greenland seals, usually less than two weeks old. They are taken on the Greenland coast, and Konsul Holmboe, the owner of the "Isbjorn," is one of the largest dealers in the world in pelts of this sort.

When taken, the skins are white in color. They are packed, and shipped to Leipzig, where are located the great European clearing houses for furs. There the skins are tanned, and dyed, later to be cut up, and used mostly for fine cloak trimmings. Great numbers of the pelts are used. The 1932 (February and March) catch of the "Isbjorn" alone was more than seven thousand seals.

The "floe rat" (*Pagomys foetida*) is a tiny seal, the body of which is not much larger than that of a squirrel. It, too, is an intelligent and nimble little animal. Fortunately for it, the skin has no commercial value.

From the standpoint of the sportsman, the bearded seal (*Phoca barbata*) stands at the head of the list. In the first place, it is not particularly common, and in the second, the big fellows are amply



Emmy Lou and her largest bearded seal

able to look out for themselves. Bearded seals are from five to eight feet long, and weigh from three hundred to one thousand pounds. Both males and females have stiff, walrus-like whiskers. Usually they are found on the floes, around Red and Wiide

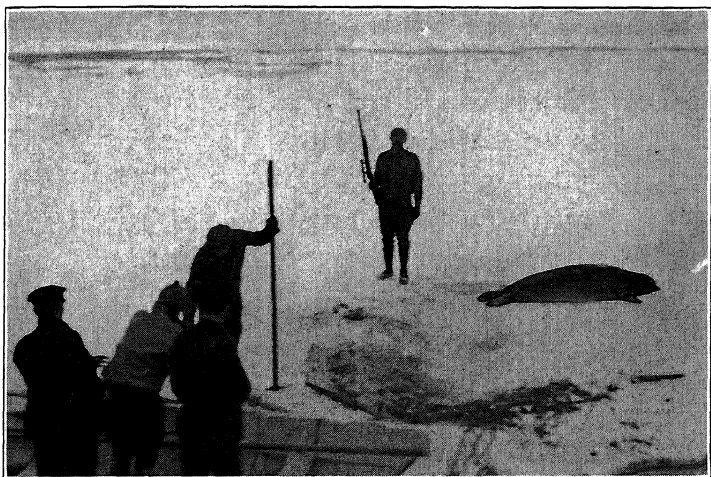
Bays, and north of Welcome Point, in North Spitsbergen. The animals, "Storkobbe," in Norwegian, do not school, as snad and walrus do, but generally are found singly.



Captain Bergersen captures a handsome young pet for Emmy Lou. The little seal was afterward released, being placed on the same floe from which we had taken him.

Like their smaller cousins, they are exceedingly alert and cautious, and many a visitor has spent a whole month in Arctic waters and never succeeded in bagging a specimen.

They are very fond of sunning themselves on the floes, and often one sees a huge old fellow, lying alongside a thinly veiled crevice in the pack ice, far afield. The best shot I ever made was on a seven-hundred-pound seal of this type. He was lying, three hundred and fifty measured yards from the edge of the pack, his body parallel with the shore



Dick and Emmy Lou successfully stalk a beautiful specimen for the
University of Kansas Museum

line. It was impossible to stalk him. As we watched him through our binoculars, we could see him raise his head, at regular intervals, and casually inspect the surrounding territory. The smug and self-satisfied expression on his face irritated me. The skipper and I had just had a long argument regarding the value of telescope sights. I fear he

classed these optical aids with reindeer pants, and similar dude equipment. Dick was out in the row-boat, helping the boys flense a five-hundred-pounder which he had just killed. In order to secure a seal, a head shot is absolutely essential, otherwise the chances are about 100 to 1 that the animal will escape, wounded, into the water. The body sinks like a rock. No one cares to indulge in that sort of thing. For this reason, we always held well forward, in order either to kill dead, or miss. Even a neck shot is not considered sporting.

"I guess we shall have to pass up that one," said Captain Bergersen, regretfully.

"If you will run the prow of the "Isbjorn" up on the ice, to steady her, I believe that I can nick him from here," I ventured.

The skipper laughed.

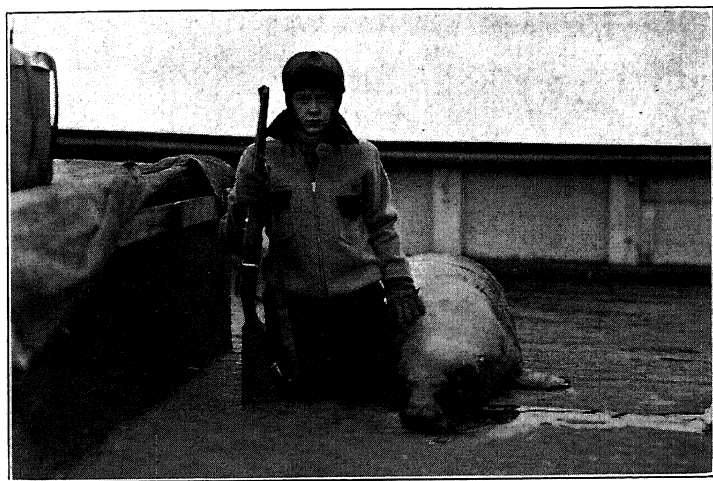
"If you do, I shall never again criticize that fancy, laboratory sight of yours," he said, laughing.

The prow grated on the ice, and the stern of the "Isbjorn" swung around with the wind. I gauged the distance, as well as I could—ice fields are notoriously difficult to estimate accurately—set the trigger on my 9.3 millimeter Sauer Mauser, took long and careful aim, and fired.

"A foot too high, but right over his nose!" exclaimed the captain, excitedly, gazing through his glasses.

The next time, I held a bit lower, waited for a breath of wind to die down, and again touched the

hair trigger. I was extremely fortunate. The bullet went exactly where I wanted it to go, as we discovered, an hour later, when some of our most skilled "soft-ice walkers" succeeded in retrieving the skin of my prize. But I never gave Captain Bergersen another demonstration of my supposed skill. I could not duplicate that shot in a hundred



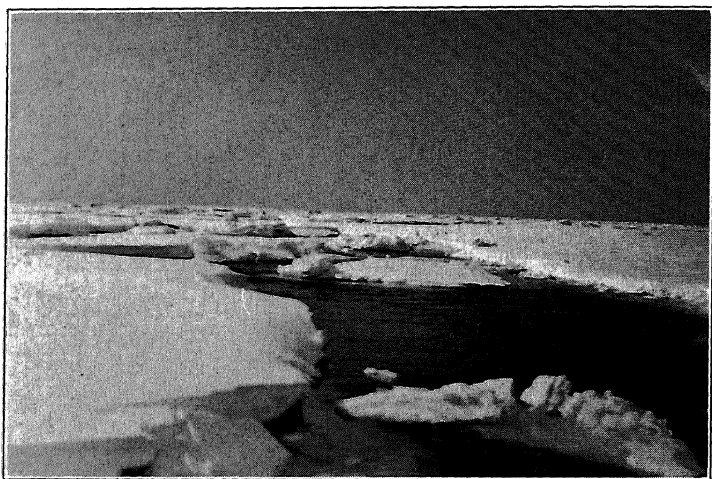
It was a cold day, even for Spitsbergen, but Emmy brought in her quarry, a three-hundred-pound *Phoca barbata*

years, and, besides, excitement of that sort is too hard on the blood pressure of an old man like me.

Seals are intelligent animals, and appear to have the ability to reason. For instance, if two barbata were seen at the same time, resting on the ice not very far apart, and one of them was carefully stalked, and killed dead at the first shot, the second

one would look up, and seeing that his associate was lying still, promptly drop off to sleep again. If the first one became frightened, or was wounded, and slipped into the water, the second also would dive, almost instantly.

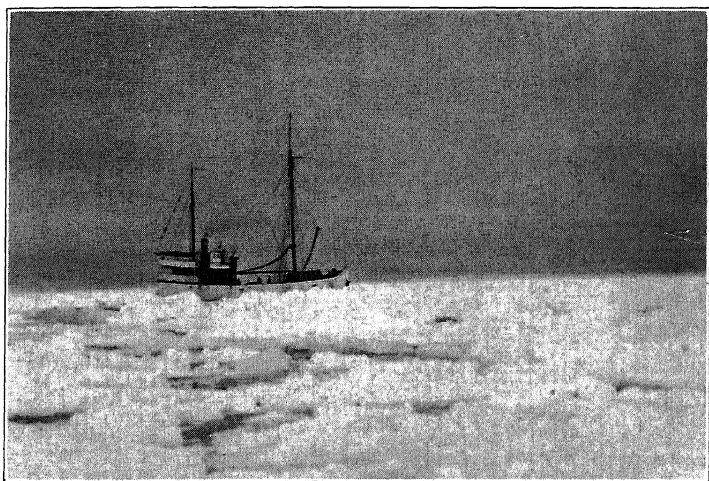
The majority are shot at ranges of from fifty to one hundred yards. Emmy Lou, armed with a tiny



Typical floe ice, near the north coast of Spitsbergen

Mannlicher carbine, got her share, but she was wise, and refused to take long chances. Those of us who were left on the ship would of course watch the stalk, through our glasses, and it was thrilling to see Emmy, one hundred pounds of determined little girl, her sawed-off but powerful rifle tightly clasped in her hand, crouching in the prow of the boat. We sometimes accused her of getting so close that her

quarry chewed the muzzle of her gun, but she knew just about what she could do, and time after time she placed her bullets exactly where they would do the most good. Our third mate, a very bright and humorous chap, frequently steered her boat. He understood a little English, but could not speak it. Once, when Emmy Lou had held her fire until the

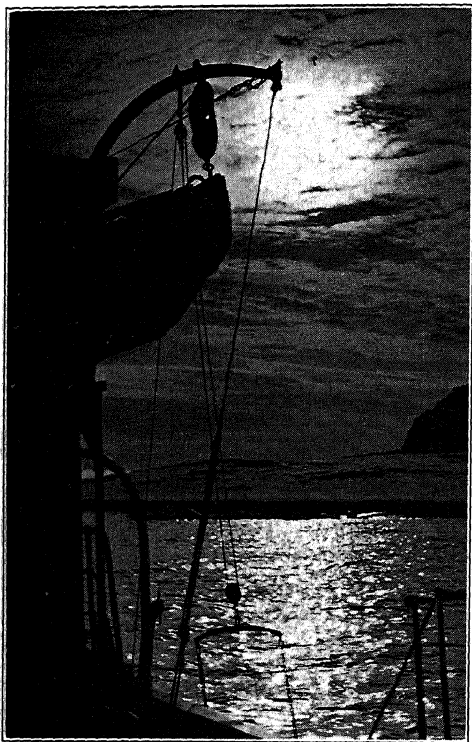


Near Lady Franklin Bay, at 80° north

very last minute, I asked him how close she had got. He grinned broadly, and made a motion as if he were chewing the muzzle of his rifle.

Strange to say, one is much more liable to under-shoot than overshoot, when firing from a boat. The sights on both Dick's rifle and mine had to be re-adjusted before we could use the weapons with confidence.

My old friend, Mr. Hermann, formerly chef of the Kansas City Country Club, and an expert



The midnight sun at Treurenburg Bay, June, 1932

marksman, was good enough to target, and lock the sights on both Emmy Lou's carbine, and my spare Mauser, and the results were perfect.

WALRUS

The last he heard was the deafening crash
Of the nine point three, with its steel-clad ball;
His thoughts snapped back to the sunny cove,
And the walrus school he had left last fall.
His chin sank down, on his broad, thick chest,
His eyelids closed, in a long, long sleep,
Twilight crept through the shadows dim,
Then peace, eternal, engulfed the deep.

—Walrus Swan Song.

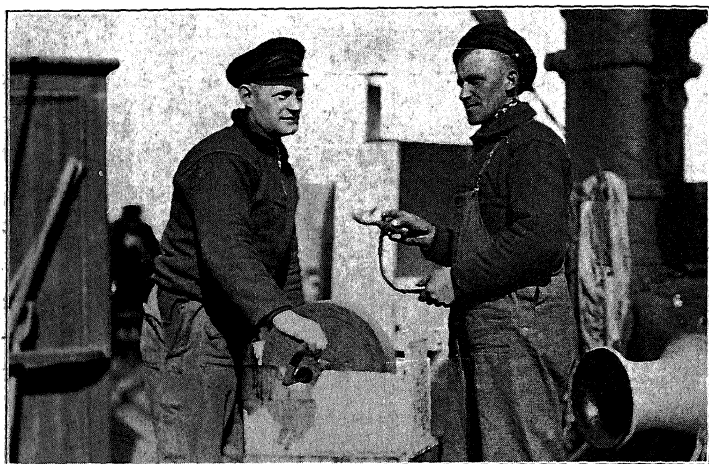


EST the reader be overcome by his emotions while perusing this chapter, I hasten to explain that the walrus as encountered in Spitsbergen, Nova Zembla, and Baffin Land probably is wholly unrelated to the gentle animal, so feelingly portrayed in Lewis Carroll's masterpiece. If Alice in Wonderland had met, at first hand, some of the walruses that I have encountered, her beautiful locks, instead of falling in curls about her snowy neck, probably would have permanently assumed the position of the bristles on a first-class toothbrush. A real, honest-to-goodness walrus is scarcely a fit playmate for a hard-boiled old veteran of the bergs, let alone a sweet and gentle little maiden such as Alice.

A healthy and athletic adult walrus is nearly twenty feet long, and weighs in the neighborhood of three tons. Both males and females are provided with tusks, although in the former, these ivory appendages, which are from 20 inches to three feet long, are set farther apart than in those of the

gentler sex. Experienced sailors insist that the wider apart the tusks are placed, the fiercer and more capable their owner.

Nature gave the walrus its tusks in order that it may use them, harrow-like, to turn up the soil in the shallow coves where it seeks its food supply. Strange to say, this huge and aggressive-looking



Two of our quartermasters sharpening harpoon heads preparatory to a walrus hunt

animal feeds almost entirely upon the mollusca which it finds among the rocks exposed by the tide, and at the bottoms of inlets and small bays. But the big brutes also have other and less gentle methods of exercising these long incisors. One scarcely ever sees an old male walrus that is not marked by numerous linear and punctate scars, where some

friend or associate has endeavored to scratch a monogram on his tough hide. As a rule, they strike downward, but as they can quickly turn their heads, they can also thrust upward and sideways.

The family life of the walrus would make an interesting study. Lamont, who probably knew as much about this particular variety of mammal as any



Emmy Lou goes over the side, to stalk a walrus in the ship's whale boat

sportsman who ever lived, and to whom I am deeply indebted, states that "no animal displays more maternal affection than the walrus."

In escaping from danger, it is not unusual for the mother to tuck her child under her flipper, and carry it in this way, when she dives.

There is a story, thrilling if true, of a seaman whose boat was overturned while he was harpoon-

ing the beasts, and who was seized in this manner, and twice carried to the bottom by an agitated mama walrus. For some reason, possibly because of his personal appearance, she finally let him go.

As a rule, walrus live in schools of from fifteen to twenty or more, and when siesta time comes, a sentry is always told off, to keep watch, while his



Walrus hunting. The attack. Emmy Lou always insisted upon keeping her little Mannlicher stuffed full of cartridges

associates slumber. The big beasts are not nearly so "jumpy" and easily frightened as their smaller cousins, the bearded seals. It is probable that they have no cause to be. A full-grown walrus should prove a match for even a large and hungry polar bear. One hears tales of such combats, but I was never so fortunate as to witness one.

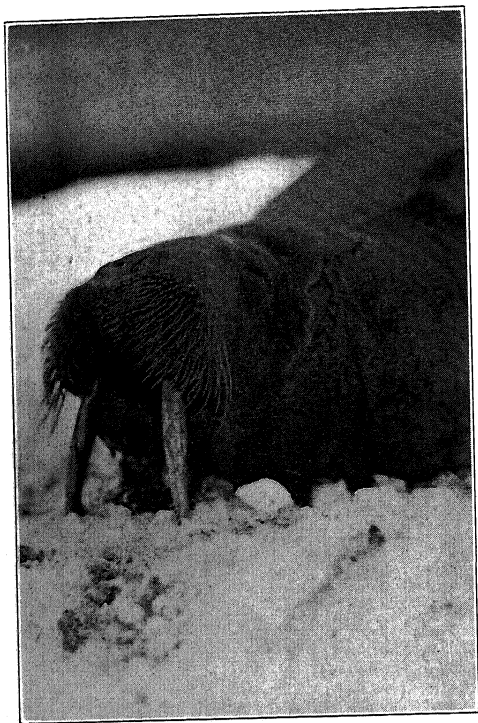
On shore, the walrus is comparatively helpless. The old Russian hunters have a saying, "God send us the bear in the water, and the walrus on land," and it is very probable that each brute is king only in his own domain.



My wife watching our daughter as she makes a long stalk over the pack ice

Walruses, unless attacked, seldom cause harm, but in many respects, they remind one of the African rhinoceros. Assuredly, they hold first place

on the list of arctic game. Formerly, many were captured with the harpoon, and even now, if the hunter is not sure of dropping his quarry at the first fire, it sometimes is wiser to use the barbed iron, also. But it is by no means child's play. The



A walrus has whiskers which remind one very much of the hirsute appendages on the faces of the Governors of some of our neighboring States.

animals are so large and powerful, and comparatively fearless, that one can never tell just what is going to happen when he starts out to stalk a wal-

rus. I have seen rowboats with as many as three large lead patches adorning their hulls, to mark the places where the long, curved tusks had ripped through the planking. Should the quarry be only slightly wounded, as by a body shot, and then harpooned, a lively time can confidently be expected by all. If the animal does not attack the boat at once, it probably will dive under a floe and try to drag the boat after it, an experience that the hunter will not find very amusing. Or it may stick its head out of the water, in order to locate its enemy, and then charge. When the head pops out, then is the time for the hunter to operate, if he expects ever to do so, and not only must he shoot, and shoot quickly, but also must he aim accurately, for the vital spot is extremely small.

Lamont preferred a four-inch circle just above the ear hole, but Dick and I, after our dissections, found a spot several inches in front of this, in fact, almost midway between the eye and the ear, more vulnerable. Under any circumstances, the skull is extremely hard and thick, and for this reason, steel jacketed bullets are absolutely essential. A bullet with a hollow point, or one with an exposed tip, even if the core be of lead and antimony, and driven by a heavy charge of powder, is practically useless. It is like throwing lead against a heavy steel plate.

Because of the close range, and the necessity for quick work, it was almost as if one were trying to shoot live birds at unknown angles with a rifle. I

found it best to discard my telescope sight. Dick used only his .375 Hoffman, with 300 grain solid, nickel jacketed bullets. Whatever is done, must be done quickly, or someone other than the walrus is liable to get hurt.

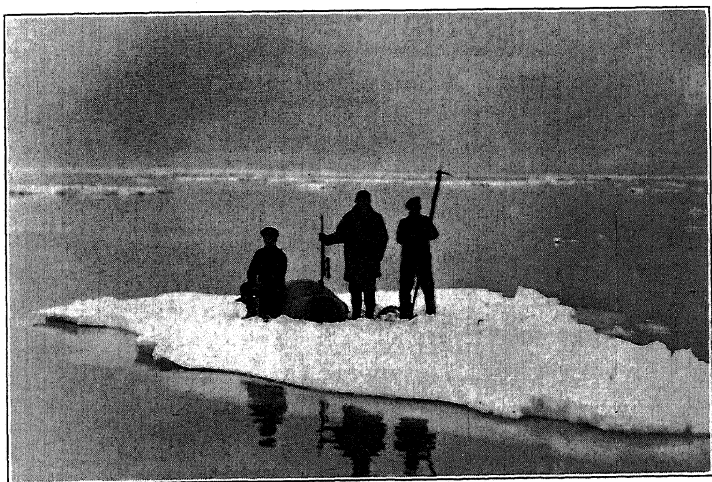
In former days, before high powered weapons were devised, the sport must indeed have been a



The Captain and several other members of our crew inspecting a small walrus

regal one. The hunter and the harpooner in the little cockpit, one armed with a 10 or 12 bore double rifle, loaded with six or eight drams of black powder, and round bullets, composed of lead and antimony, and the other with his keen pointed javelin, to the head of which a line, many fathoms long, was firmly attached.

Lamont speaks of his experience while working with a capable but very nervous harpooner who imagined that the walrus was going to drag his boat under the ice. In order to preclude the possibility of such a catastrophe, the spear wielder always brought along a sharp hatchet, the edge of which he would repeatedly test just before going into ac-



The author with his first walrus

tion! Lamont said it reminded him of some of his African Zulus, who always gave notice of impending danger by taking off their sandals. I once had a gun boy who did that very thing. At first I could not blame him, but after a while, when I had become a fairly good shot, and occasionally did hit something, he persisted in the practice, much to my resentment and annoyance.

Strange as it may at first seem, certain varieties of arctic game are to be found only in certain localities. But this is readily explainable. The game follows the food, and the food is to be found only in particular areas. Just as in Indo-China, the grass follows the water, the deer follow the grass, and the tigers follow the deer, so in Spitsbergen, the walrus haunts only those bays and coves which contain his delicious mollusca.

It would seem that the food supply is diminishing, for in earlier days, despite the strenuous and almost constant pursuit of this big mammal, whose market value at that time was very considerable, the walrus was much more widely distributed than at present. Ernst Sorensen tells me that it is still fairly common in Greenland and Baffin Land, but in the vicinity of Spitsbergen, it is seldom found farther west than Hinlopen Strait. Wyches Island is a favored spot, as are also the Seven Islands, and Franz Josef Land.

The beasts prefer water which is only a few feet deep, and they delight in sunning themselves on the floes, and even on the shores of the islands.

For a long time, I have considered the tiger the greatest of game animals, but I am now inclined to believe that in the walrus, "Master Stripes" has a real competitor.

BEARS

The mountain tops rose bare and bleak,
Below them stretched a floe,
Engraved upon its soft, white coat
Were bear tracks, in the snow.

The lengthy footprints told a tale
Of wandering at will,
Then stalking to the water's edge,
Intent upon a kill.

But here the fresh trail ended
In a blood-stained, yellow heap,
This polar king, so gaunt and fierce,
Forevermore will sleep.

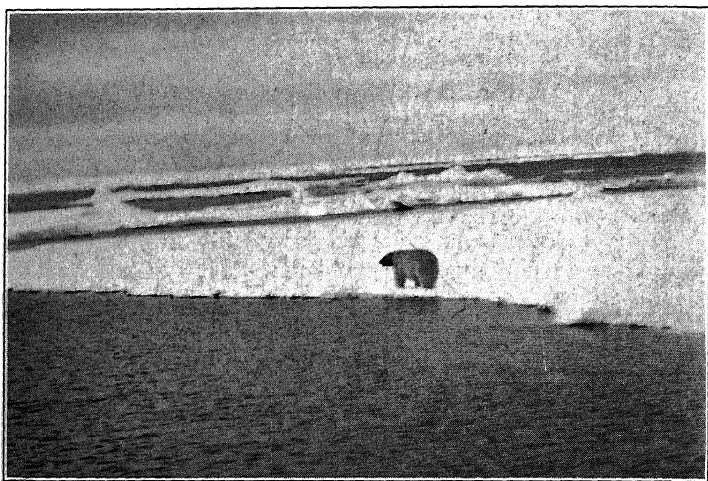
A crash of cordite rent the air,
He dropped, and there he lay.
Thus he, and not his quarry, fell
A wandering hunter's prey.

—E. L. S.

PHYSICALLY, and intellectually, the polar, or ice, bear reminds one very much of the American grizzly. The great brown, or Kodiak, bear, is by far the largest of the three, but when it comes to exercising his brain power, the big, white polar king is in a class all by himself. In the North, one hears innumerable stories of his wit and cunning, and after two months of intensive study of bear psychology, I am inclined to believe that many of them are true.

Of course, one can succeed in fooling even the wisest of bears, just as one can entice into range, by means of a simple mechanical call, so unstalkable a bird as the wild turkey, but when a sports-

man starts out with the belief that he is going to bag every polar bear he sees, that gentleman is going to be disappointed. As with all hunters, my luck generally runs in streaks, like the fat and lean layers in a side of bacon. Occasionally, the lean strata far outnumber the oleogenous ones. On the present expedition, we saw twelve bears during



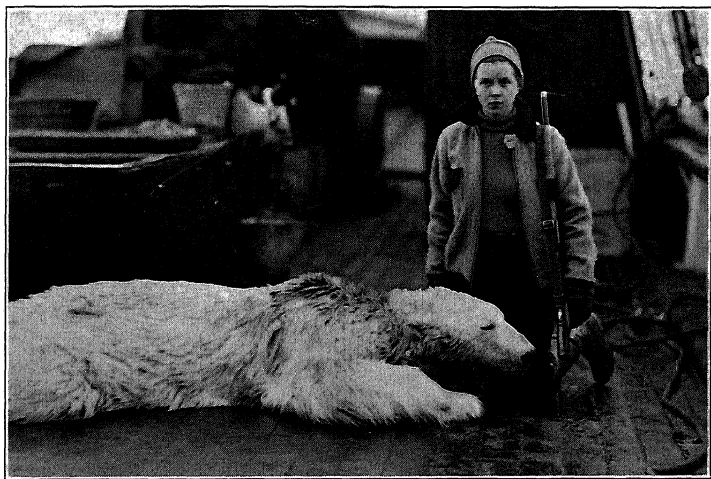
A morning stroll, along the edge of a floe. This bear has just dined on a fat young seal. Note the blood on its chin

our first two weeks on the shooting grounds. Of these, we killed only seven, although we might have had two more if we had not been so intent upon photography.

After that, followed a very lean week indeed, during which we experienced two gales, and a heavy snowstorm, which lasted for three days. During

the latter part of our "safari," we were more fortunate in the matter of weather, as well as in finding game.

Occasionally, one can lure a bear from an impassable ice field by means of burning blubber, especially if the wind is right. But a bear that has previously encountered man usually is shy. The

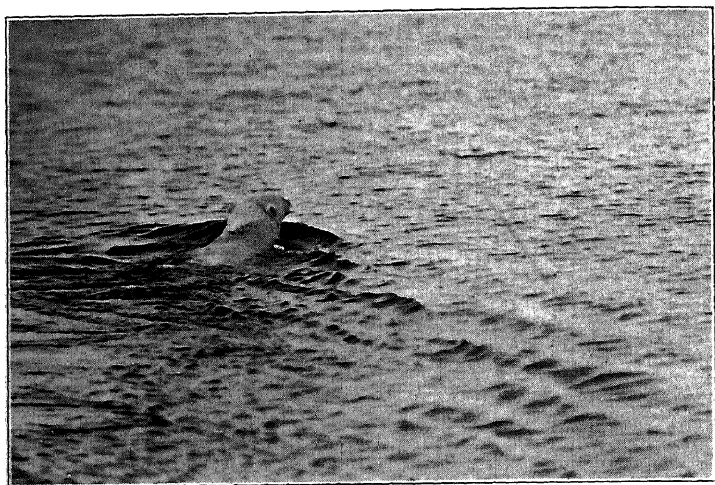


Emmy Lou killed her first bear at 12:30 A.M. This photograph was made at 1:30 A.M., f4.5, 1-50th of a second exposure

chances are about ten to one that the experience had been unpleasant for Bruin.

Once, when we discovered two bears on pack ice, the larger and older animal made every effort to escape, while the younger one, a two-year-old, weighing about 600 pounds, walked right up to the ship, and was repeatedly photographed from the deck.

Descriptions of enormous bears are to be found in the literature. The one at Bear Island, killed in the famous combat with that Ulysses of the bergs, Barents, in 1596, probably was the largest, although it is very possible that its avoirdupois has increased considerably with the years. Lamont killed a mon-



A polar bear taking a morning swim. They sometimes cover great distances in this manner

ster specimen weighing approximately 1,600 pounds, at Deeva Bay, in 1859.

Our largest bear tipped the scales at only a little over half a ton. The circumference of its neck was more than 36 inches, however, and the muscles were almost as hard as iron. The strength of an adult animal must be amazing.

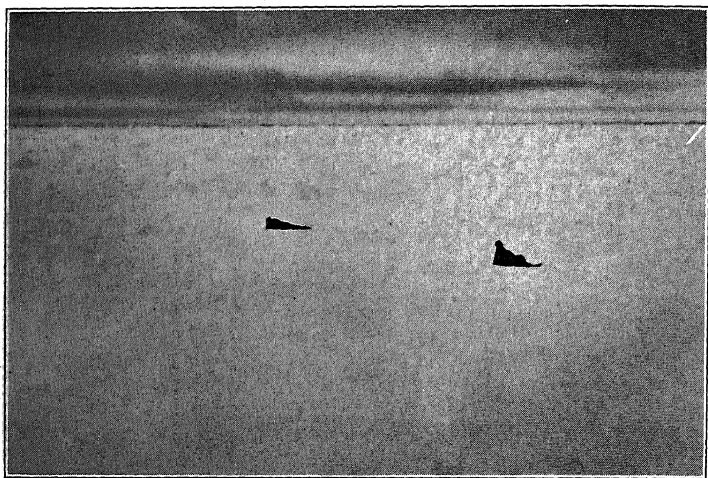
It is great sport to "play seal," with the intention of enticing the big fellows to come within range. Once, Ernst Sorensen, who, if the theory of transmigration proves true, will undoubtedly be an ice man in the next life, and Richardson, our radio operator, went ashore with this idea in mind. They proceeded inland, two hundred yards, over ice which



The 9.3 mm. Sauer Mauser, with 4 X Zeiss scope, proved too much for this big ice bear

was not only quite rough and sketchy in character, but also rotten, and fairly colandered with old snad holes. The bear was inquisitive, and, better still, as gaunt and hungry looking as Don Quixote's charger, "Rosenante." Apparently, the sight of two fine, plump objects which he mistook for bearded seals, filled him with delight, and gastronomic long-

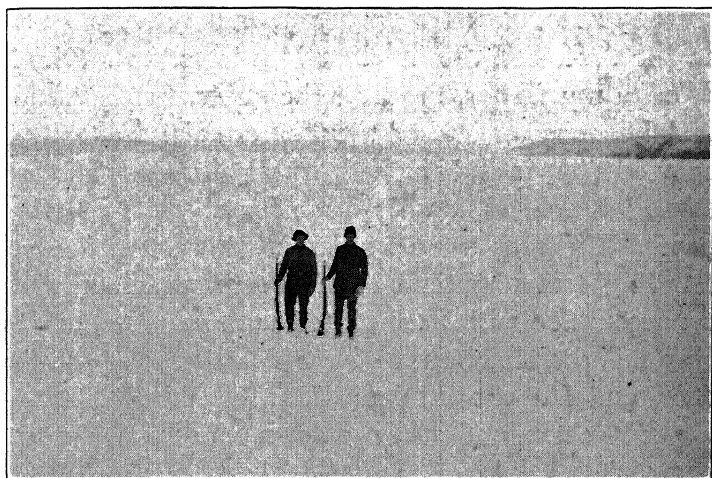
ing. Through the big telescope, we could see his mouth water. He gave three or four delighted hops, sat up on his hindquarters to make sure that his diagnosis was correct, and then started for those two imitation phoca. And the speed with which he covered that intervening half mile was little short of astounding. Unfortunately, Ernie



"Ernie" and "Radio" Richardson play seal for the entertainment and edification of an inquisitive polar bear

and Radio, in their enthusiasm over the discovery of a new game, had neglected to take their rifles with them. They were about two hundred yards from the boat, and when they awoke to a realization of their danger, the bear was about two hundred yards from them, coming strong. The sight was so ludicrous that for a moment I did not realize the

perilous position of my friends. Sorensen caught sight of the bear first, and gave a wild yell. A second later, both men were making speed records over the rough pack, hopping like rabbits across snad holes, and taking advantage of every little smooth stretch of ice that lay between them and salvation.



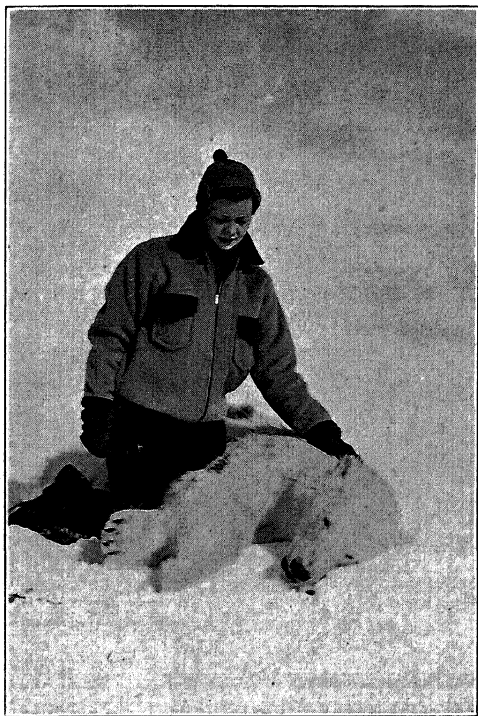
Two members of our crew start out to drive a bear into the camera field

Fortunately, their four-legged admirer hesitated when he reached their former resting place. Smells always intrigue Bruin, for his nose is of the keenest. The momentary pause was just what Dick and I were waiting for, and as the bear turned, broadside on, our rifles cracked, and he got one bullet in his neck, and another just below the right ear.

Before leaving New York, Mr. Stefansson had advised us never to go ashore without a gun, and the precaution certainly is a wise one.

Only the week before, Emmy Lou had had the fright of her life. A group of us had gone ashore on a little island, in Hinlopen Strait, to collect duck eggs. Dick carried a light shotgun, for bird specimens. But I will let Emmy herself tell the story, as she described the incident in a letter to a friend. "Today my father, brother, the guide, two boatmen and I landed on one of the Foster Islands, to hunt eggs. The island looked small, but as matters turned out, it was amply large for all practical purposes. Pushing aside numerous chunks of ice, we finally got our boat up to the shore, and landed on a narrow floe which connected with terra firma. It was delightful again to have solid ground underfoot, and I spent a happy hour, climbing over the jagged rocks, and sliding down the hard crusted snowdrifts, always on the lookout for guillemot and eider duck eggs. Dad was taking pictures, Dick wandered off in search of rare birds, and the men scattered in all directions, egg hunting. Shortly, Dick came up to me, and gave me the body of a tiny brown turnstone to care for. Not desiring to carry the body of the dead bird about with me, I started for the boat. Apparently, I had been wandering about in a haphazard sort of fashion, for I had lost my sense of direction, and when I reached the shore, no rowboat was there, and not a member of the party was in sight.

"To me, it seemed that I had walked for hours. The hot body of the poor little bird was still clutched tightly in my hand. I thought that if I walked long enough in one direction I would find



Emmy Lou feels sorry for this poor bear although it is extremely doubtful if, their positions being reversed, the bear would feel sorry for her.

somebody or something, and I did. Lo and behold, bear tracks! Not old, weather-beaten, snow-clogged footprints, but a fresh, toenail-marked trail, one that could not have been more than an hour or two

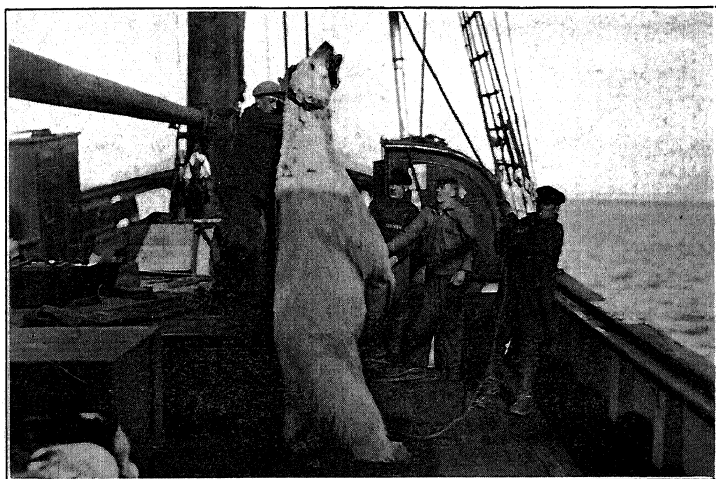
old. And, to add to my terror, the tracks were those of a big bear and a little bear, a mother and her cub! It is hard to find a fiercer animal than a mother bear. Socially, and out in the open, they are simply impossible. I suppose it is her maternal instinctive protective attitude. Here I was, alone and unarmed, on a rocky hilltop, and practically



Watching the carcass of a dead bear coming over the side

surrounded by bear tracks, with my little Mannlicher lying tucked away on the 'Isbjorn,' far out at sea! Do you wonder I was scared? It may be that my conscience hurt me—I had killed a bear that morning. I do not know, but my fear was almost overwhelming. The thoughts of what such giants do to little girls, and especially to little girls who only recently have been shooting their rela-

tives, was almost more than I could stand; and the solitude of the place certainly worked on my nervous state! Afterward, I remembered that I was carrying my Swedish hunting knife, a trusty weapon in time of need, but in my excitement I thought of nothing but a speedy and rapid change of location. Several minutes of deep reflection, and I de-



Our largest bear comes aboard

cided to retrace my steps, bear tracks or no bear tracks. This I could readily do, as the snow was soft, and impressionable. Believe me, I was a happy girl when I saw the sailors gathering eggs, on a distant hilltop. I called to them, and even though they could not understand English, the pleading tone of my voice brought them at once to my assistance.

"One of them accompanied me to the boat, where, with the carcass of the tiny bird still clasped in my hand, I waited until the other members of the party were ready to return to the ship. But never, never, never will I forget those bear tracks!"

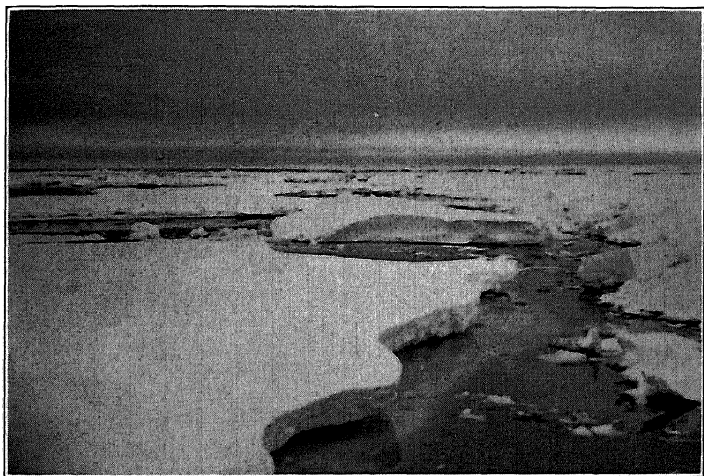
It is interesting to watch a bear when it is out on a sealing expedition. Sometimes the care and patience exercised are little short of marvelous.

I have seen the big white fellows dive, in an effort to escape, but there are authentic accounts of their having plunged into the water in order to capture food. An acquaintance in Tromsö told me that he once saw a large bear outwit a seal. The latter, a *snad*, about three feet long, appeared to be very nervous, and repeatedly dived into its hole, and crawled out again. The bear lay for a long time, watching the animal. Then it slipped into the water, dived under the ice, and swam nearly fifty yards, coming up directly under the *snad* hole. The astonishment and indignation of the latter, when the bear stuck his head up through the opening, can readily be imagined. But the poor little seal was not worried for long. One quick sweep of a giant paw, and the diminutive representative of the *phoca* family was gathered home to its fathers.

The food capacity of an adult bear is so great as to be almost unbelievable. After gorging itself, the beast looks about for a nice warm snowdrift, and having found one, quickly excavates a temporary

home. Here he rests for several hours, until he feels the need of further nourishment.

Authorities, such as Nansen, have expressed the opinion that polar bears do not hibernate. They may be seen at all times of the year, wandering about on the floes. Usually, in February, the fe-



A small lead or lane in a huge ice field. It is on floes of this type that bears are found

male retires to a cove, or a secluded cavity in the ice, and brings forth her young, but the seclusion is only temporary. The little bears remain with their mothers for many months, until they are able to fend for themselves. The mother bear exhibits strong signs of affection for her offspring, a love which is not always reciprocated. Lamont tells an

interesting story of a mother bear which, shortly after being killed, was devoured by her two half-grown cubs!

For hours I have watched, through my binoculars, a bear waiting beside a snad hole for his prospective dinner to appear. The bears' coats are yellowish white in color, almost that of the snow on

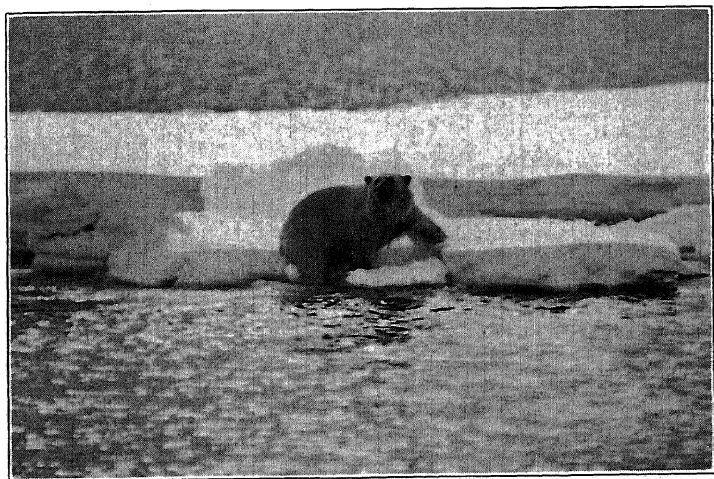


Bringing in a trophy. A thousand-pound bear is not a light load in heavy snow

which they are crouching. The tip of the nose alone is black, and it is astonishing how far this small landmark can be seen! Apparently the bear also recognizes this cosmetic handicap, and when he is lying in wait, the offending proboscis is carefully covered with one of the animal's giant paws! The moment the seal's head appears, there is a

quick sweep of a powerful forefoot, and the cruel, hooked claws seldom slip, once they have found their mark.

Hunting bears among the hummocks and pressure ridges of a large field of pack ice is interesting and exciting work. Usually, the cunning beasts take advantage of every nook and cranny. It is



Occasionally a big bear would defy us to land on his floe. Many of them were photographed and allowed to escape

very seldom, unless they are wounded, or unless the quarry is a female, with cubs, that they will make an outright charge.

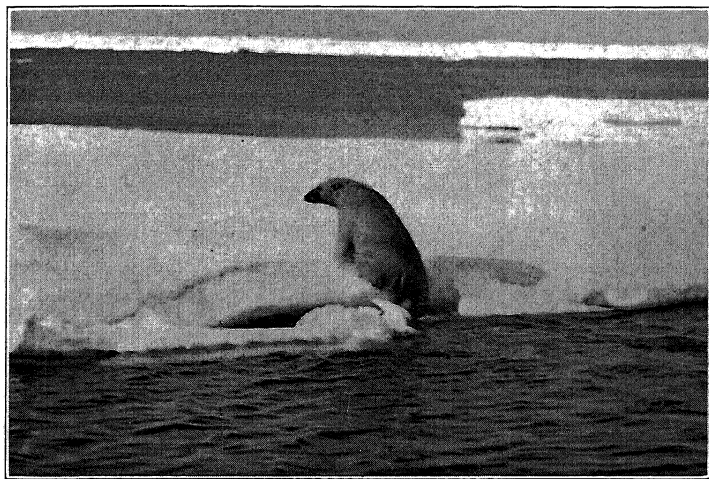
We once located an old and sophisticated bear on a big ice field. He at first looked like a very good photographic subject, and if he had behaved himself, and posed as he should, the thought of trying

to slaughter him would never have entered our minds. But he not only refused to pose, he even endeavored to catch some of the ambitious young volunteers who had gone ashore to herd him into the camera field. When he became disgruntled and obstreperous, it was decided that we would reserve our film for a younger and more appreciative candidate, and I was elected to administer the *coup de grace*. But where was my intended victim? He had disappeared, and we never saw him again. It is extremely probable that he had crawled from behind the hummock, where he was supposed to be hiding, dropped into a crevice, or "lane," between two floes, and then cautiously paddled along until he reached the far edge of the field. In desperation, we circumnavigated the great pack. This was tedious work; and it was two hours before we reached a spot opposite the one where the bear was last seen. As we ran slowly along the edge of the field, at a point about a mile further on we saw where the animal had again scrambled back on the ice! Apparently he had swum along the edge of the field all of that great distance. I was glad he was unwounded. An animal as cunning and plucky as that is entitled to every consideration, even though he does harbor a contempt for the movies!

Near the southern extremity of Hinlopen Strait is located a large island, probably discovered by Joris Carolus, a Dutch skipper, in 1614. He called it Matsyn Island, but others did not accept the des-

ignation, and for a long time it has been known, and charted, as "Edge Island." It was Thomas Edge, who in 1612-14, explored North East Land, and the land east of Stor Fjord, and discovered Wyches Land, 1617, Hope Island, and others.

We sighted Edge Island while hunting walrus, in June, and it was at that time I heard the following story, from Sorensen, our guide:



A huge polar bear decides to take a walk on a floe

In 1853, the sloop "Donoline" found herself in the beginning of August at High Rock, one of the Thousand Islands, near the south end of Edge Island, and nine Norwegian miles northeast of South Cape. The crew was occupied in a catch of bears, near some walrus carcasses left there the preceding year by a Hammerfest sloop. While the ship, with

two men aboard, was moored within half a mile of shore, Kulstad, the skipper, together with six men went ashore to shoot bears, which apparently were very numerous. After thirty-six hours of unceasing slaughter, the men were about to return to the ship for a rest, but due to a dense fog which arose, they failed to find it, despite a long search. La-



The Captain poses with one of his own

mont, in his version of the episode, insists that the caretakers got drunk, and allowed the ship to drift away. Be that as it may, the captain, with his group of hunters, was marooned.

A Lapp who was among the crew made a fire, and fried some bear meat, and one of the rowboats was hauled up to the summit of the island, and served as a sort of shelter for six days. Finally the fog

lifted, and West Spitsbergen, as well as Edge Island could be seen. All between was pack ice.

In one of the boats, the men bore off south, intending to pull along the edge of the ice until they could overtake their ship, or find another which could save them. Very soon they saw a ship, but it was too far off, and they could not attract its attention.



Emmy Lou with her largest bear and one of its smaller relatives

Under the greatest strain, they now tried to haul the boat over the ice toward South Cape, where they knew there were plenty of birds to be had for food.

Current and tide were against them, and despite all their efforts, the exhausted men found that they were being driven back instead of making any prog-

ress. Several grounded bergs indicated this. They now resolved of the foolhardy undertaking to bear off for Finnmarken, Northern Norway, in an open boat, eighteen feet long, by four wide, and two deep. Their supply of provisions consisted of a few pounds of fried bear meat and a keg of water, and their navigating instruments and two compasses. Well out of the pack ice, they encountered very rough seas which threatened every moment to swamp the boat.

A pair of harpoon poles and a line served as a good oppressor of the waves, but the boat was occasionally filled up to the thwarts by the incoming seas, and the glass of one of the compasses was broken. When they landed at High Rock, the men had neglected to take a mast and sail with them, and were thus compelled to pull off for the wind. They took the fur cloak of the Lapp who had saved them with his fire, cut it open, and lashed it to two oars, as a sail. In this manner they were able to make a speed of four or five knots, and calculated that they should reach Norway after four days of sailing if the wind continued to blow from the same direction.

While some of the men pulled the oars, the others stretched themselves out in the bottom of the boat, and tried to sleep. But space was limited, and sleep was not possible.

In their terrible sufferings, they had frequent spells of delirium, and hallucinations. The skipper

related that the first time he was attacked, he saw a town, with masts of ships, houses, vegetation, and cattle, and he ordered his men to land, but their derisive answers quickly brought him back to his senses. After four days they found an iceberg, and were able to quench their thirst. Icebergs are



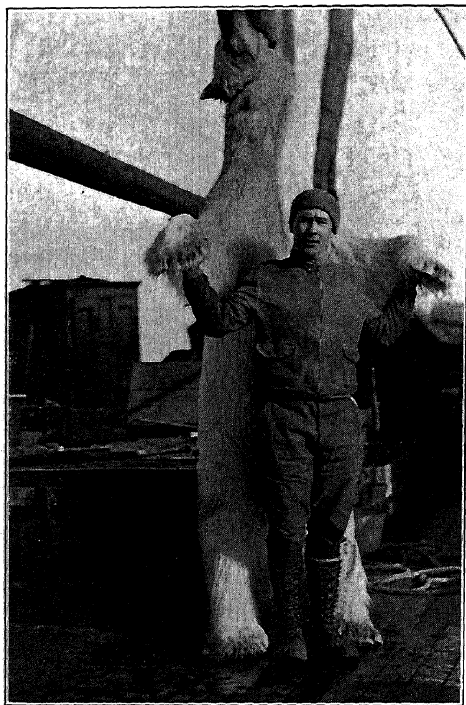
Emmy Lou outwits a bear which had refused to succumb to five rifle bullets

formed at the mouths of glaciers, and the water of which they are composed is fresh water.

But the tendency to hallucinations still persisted. The poor Lapp, Lars Pedersen, was worst. He would step out of the boat to fill his shoes with dry grass, a custom of his people. Due to the spaciousness of his shoes, his feet were in the best condition

of all, while many of the others developed gangrene, and were only able to stand up by clinging to something with their hands.

After a sojourn of six days in the boat, they beheld great flocks of birds, and with the three last



Dick poses with his first polar bear

bullets, the Lapp shot as many petrels. These were devoured raw, bones and all.

The next morning help came. The men had given up from exhaustion, and with the anchor out, to

keep the stem of the boat against the wind, they had laid themselves down in a stupor to await the end.

A Danish brig, the "Ploven," Captain Schon, found them here. He cared well for them, and landed them at Vardo. The brig, which was from Archangel, was bound for England, and had altered her course only the day before, otherwise the castaways never would have been found. The place where they were picked up is twelve Norwegian miles, equivalent to 84 English miles, off Tarehalsen, in Northern Norway.

The fate of the "Donoline" was as follows: An iceberg drifted against it, and the mooring parted. The ship was carried by the current into Storfjord. Here they met other ships, and the skipper of one of them, Captain Ronbeck, supplied the "Donoline" with an additional man. The ship returned to High Rock, but found it completely closed by ice. The crew then foolishly determined to abandon their mates, and sailed for Norway.

It would seem that the life of a bear hunter is not always a happy one.

ICE

They sailed for Northeast Land, the weather was fine,
Their sloop was as snug as a Ship of the Line,
But ill fortune dogged them, and they were beset,
Enmeshed in the pack-ice, like fish in a net.
Though the Skipper was wary, and so was the mate,
They shivered their timbers in Hinlopen Strait.
They perished like heroes, for such was their way.
Peace be to their ashes, by Treurenborg Bay.

—Old Finnmarken Ditty.

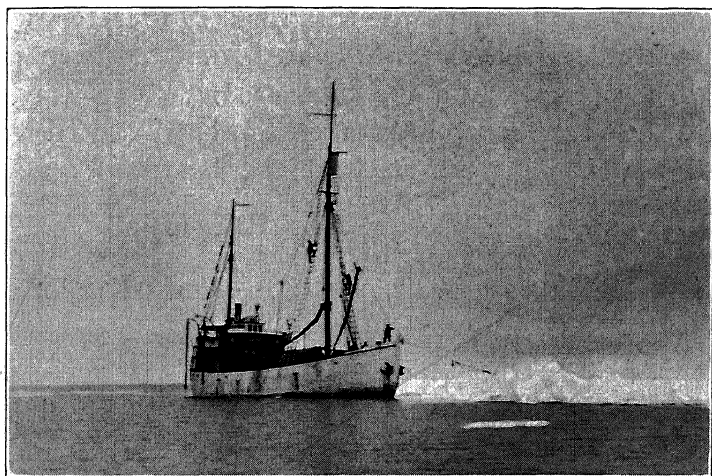


HERE is nothing like a suitable environment to stimulate the imagination. When we planned our Arctic cruise, we decided to leave Tromsø in May in order that we might become acquainted with floes, and ice fields, and glaciers at first hand, in their primitive loveliness. Our success far exceeded our expectations.

When I wrote this, we were lying in the north end of Hinlopen Strait, near Lady Franklin Bay, where we had been driven by a fierce gale from the Northeast. We were tethered, with a heavy steel cable, to a grounded berg which, if it were standing on dry land would approximate the size of the Empire Building. For three days we had been swept by a blinding snowstorm. And it was the middle of June!

Stefansson, in one of his charming books, *The Friendly Arctic*, compares the cold weather encountered north of 80° with that which he experienced as a boy, on the Minnesota prairies. And, as usual, Stefansson is right. With the mercury well below

—10° centigrade, and a hungry wind howling in the rigging, and the deck piled high with snow, we suffered very little discomfort. Of course, plentiful amounts of warm food, and suitable clothing help a lot, but one really does not feel the cold there as in the United States and Canada. The gulls, and the saucy little guillemots appear to enjoy it, and



For three days we were anchored to a large iceberg in Hinlopen Strait when we fed them, as we did every day, they came close up to the rail, and joyfully battled among themselves for the bits of blubber and scraps of seal meat.

Emmy Lou and Dick had just come in, after a lively snowball fight on the floe, their eyes sparkling, and their cheeks as red as Jonathan apples.

The crew appeared to enjoy the enforced vacation as much as we did, and when off watch, the men played cards, generally whist, read, slept, repaired their gear, and ate. Konsul Holmboe, the owner of the "Isbjorn," was a generous provider, for his employees as well as for his guests, and the men were fed four times a day, at 7, 12, 4 and 8 o'clock. The majority of them were young chaps, from Frederick, the cabin boy, a lad of fourteen, up to the quartermasters, whose ages ran from twenty-two to thirty. And the number of calories those chaps stowed away was a caution! We tried to keep them in fresh meat, birds, bear, seal, and whale. A huge bin of rye bread, sufficient to feed an army, was in the cool after hold, and an enormous dish of fresh margarine, with a big pot of jam was always within reach.

The senior engineer was a practical jokesmith, and before the expedition ended, someone, Emmy insisted, was going to "bean" him.

We encountered our first ice, loose floes, for the most part, averaging from fifty to a hundred feet in diameter, near Bear Island, our second day out. After that, we were never out of sight of ice.

Fresh water ice, from the glaciers, is clear, and blue or green in color. The masses vary greatly in size. Some, as the Gargantuan hitching post to which our ship was fastened, are almost unbelievably huge, others, commonly called "bergy bits," are no larger than a small house. In the water,

they are seven-eighths submerged, and as they float along, with their tops reflecting the sunlight, they resemble chunks of light green glass. On June 1, we saw an enormous berg, fully one hundred feet at the water line. This meant that the mass was nearly a thousand feet tall. Bergs of this size are rare, however, in far northern waters. As a rule they come from the deep fjords of Franz Josef Land and Greenland, and travel southward.

Bay ice is, of course, formed from salt water, and while smoother, appears to be less durable than ice from the open sea. One might jokingly attribute this to the environment, but in reality, the ice of the huge open spaces is generally a mixed mass of frozen water, welded together by cold and by pressure.

It is these huge floes which are a menace to ships. Seeking to penetrate further into the pack, one will spend hours and even days, searching for a "lane," or open fissure. At last one is found, and the boat slips in, the captain and the officer on watch meanwhile keeping a sharp eye on the movement of the floating islands. Sometimes the crevice widens, and occasionally the floes drift far apart, but often they do not. A contrary wind may arise, and with one side of the lane locked, and at a standstill, the loose field appears to take a fiendish delight in seeing what its saw-like edge can do to the tough planking of a ship's hull. The force exerted may become so great that "pressure ridges"

develop, the ice is forced upward into huge mounds and hummocks, some of them fifteen or twenty feet high, and sooner or later, even the strongest and most powerful vessel is "beset." A properly constructed wooden ship can stand a tremendous amount of this squeezing and come out unhurt, but the captains of iron and steel ships fear the ice as the church fears the devil.



A polar bear which tried to bite Emmy Lou's ear off, and fell a victim to her deadly aim

The "Isbjorn," like other sealers of her type, had a dish-shaped, or rounded bottom. This rendered her a bit wobbly in a rough sea, but it was a blessing in the ice, for the entire hull was simply lifted into the air, and when the frozen support was withdrawn, the little craft settled back on the water, as

good as new. She had repeatedly been beset, sometimes for days and even weeks, and had always managed to extricate herself without serious damage.

The "foot" of a floe is the projecting fringe of clear ice which forms the base. In worn, or "rotten," floes, the foot is sometimes so perforated as to be almost lace-like.

Some of our men were exceptionally expert in travelling across moving ice. Sorensen, our guide, was especially skilled. Spitsbergen is his idea of Heaven, and he enjoyed every minute of the time spent there. When we were at anchor, he was constantly on the move, afloat or ashore. He could negotiate soft and treacherous ice like a duck, and snad holes, with their counterfeit lids of snow, had no terrors for him. To me, these hidden openings always were menacing hazards. I cannot swim (for that matter, very few men can, in icy water), and the thought of gaily prancing along, and suddenly and unexpectedly shooting downward through a two-foot hole, probably to rebound and bump my poor old crown against a solid roof of ice, was, to say the least, disconcerting. To be drowned is bad enough, but to be drowned, and then have one's body forever preserved in cold water, floating and bobbing about in the Arctic, that would be indescribably heart-rending.

"Pancake ice" forms below the surface, in still water, in early spring, and is a result of only a

minor drop in temperature in water which already is very close to the point of crystallization. The masses are pancake-like, and may develop so suddenly as to beset a ship in apparently clear water. In many respects pancake ice resembles slush ice. It is quite tough and tenacious, and is especially common on the east coast of Spitsbergen.

Ice fields develop in the Arctic Ocean, and may consist of an amalgamated mass of old floes, cemented together by new ice. Their area sometimes is very great, approximately many hundreds of square miles. Fortunately, they are not very durable. The action of the waves tends to break them up into smaller masses.

Ice pack also is amalgamated floe ice, but is much thicker and denser and rougher than field ice. As with field ice, however, sooner or later the great blankets become fragmented, and scattered.

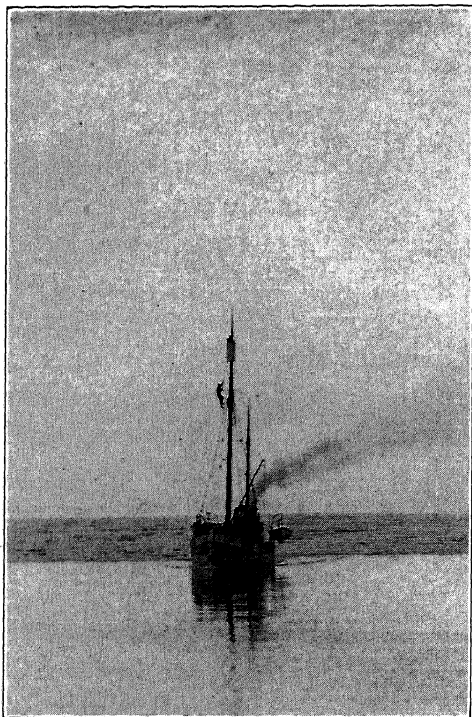
Occasionally, as between Hecla Hook and Lomme Bay, and on the southern coast of Northeast Land, one encounters huge ice fields, hundreds of miles in extent. No matter how long or comparatively hot the summer season may be, these great masses of frozen water appear but little altered. It is probable that for centuries they have retained their size and position.

There was little sleep for any of us, the night of June 16. We had combed and curried the bays and inlets of Hinlopen Strait, from Low Island to the Wyches, for a week, hoping a record walrus would

be our reward, but, aside from one husky young 3,000-pound sophomore, and two bears, our search had not been productive of much result.

That morning we saw "ice glint" on the northern horizon. This meant an accumulation of ice in the mouth of the Strait. Inasmuch as there was already a strong and impenetrable cordon to the south of us, linking Edge Island, the Wyches, and Northeast Land, it behooved us to keep a sharp eye on the neck of the bottle which served us for a shooting ground. No one wants to be corked up in an Arctic strait, particularly when duty calls elsewhere. That day we spent in Treurenburg Bay, which is bounded by Verlegen Hook and Cape Foster. In the afternoon, Dick, accompanied by Ernst Sorensen, and two boatmen, explored the shore, and investigated an old building, possibly at one time the emergency home of a group of shipwrecked or icebound seamen. There were several lonely graves, with pine crosses for markers, one of them dated 1855, in deeply carved figures. Dick is a born museum man, and when he returned to the ship, every member of his party was loaded down with trophies. An old Norwegian net float, of glass, and as large as a toy balloon, seven different varieties of birds (we had heard the twenty bore, barking at intervals all afternoon), geological specimens, two exposed packs of film, Arctic flowers, plucked from the edge of a snowdrift, and, last but not least, a whale's vertebra, that weighed fully thirty pounds.

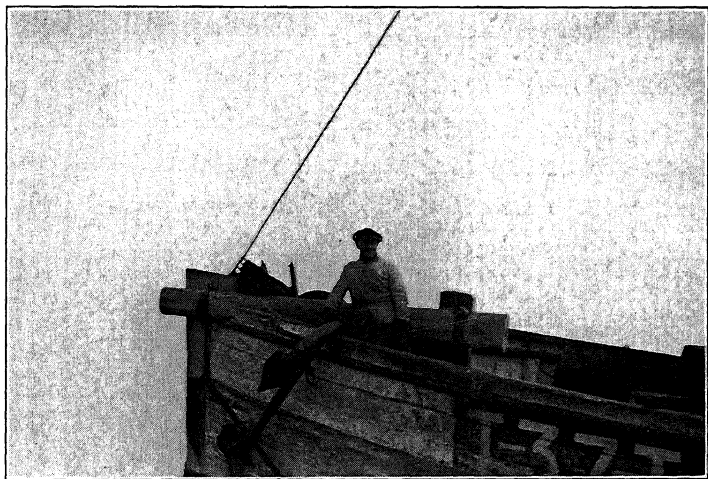
The captain had been pacing the deck, and the minute the shore party was on board, we slipped our moorings, and started north. From the crow's nest, the skipper and the first mate had seen the ice



The "Haakon," which was beset in the ice, follows us out into open water

creeping down on us. The movement of floe ice is influenced by both wind and tide, and to a new-comer, it is astonishing how an ice field can change in the course of a few hours.

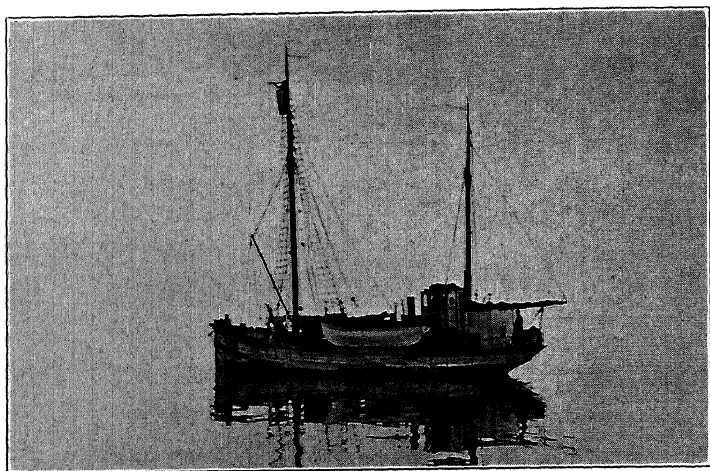
In this instance, a long frozen barrier, which had extended from Lady Franklin's Bay, up to the Seven Islands, and beyond, had broken loose, and, not unlike the lid of a box, had swung southward until it extended from Low Island to Verlegen Hook. A few hours more, and Hinlopen Strait would be efficiently "corked" for at least a fortnight or even longer.



"Wolf" Olsen, skipper of the "Haakon," bids us good-bye

We estimated the belt as not very wide, about twenty or twenty-five miles. But much of the ice, at least on our side of the improvised fence, was both thick and tough. The masses varied in size from that of a city block, to fields as large or larger than Central Park. Their average thickness was from six to ten feet. So long as we could follow

a lead, the gallant little "Isbjorn" could plough and batter her way through, but the bigger floes, when we encountered them head on, slowed us up so much as to endanger our success, and the very nature of the case, in which speed was so essential, precluded the use of explosives. Every ship that enters the ice area carries a supply of dynamite for this purpose. One never can tell when it will be needed.



The "Haakon" bears out to sea

We first tried to bore a way through the barrier at a point a few miles north of Verlegen Hook, but here the current tended to swing shoreward, and only a huge and powerful ice breaker might have won a passage. After four or five hours of this strenuous sort of exercise, our captain decided to retrace his course, and make a second attempt, farther east.

Far to the north we could see the masts and superstructure of another walrus sloop, which the lookout decided was the "Haakon," of Tromsö, Captain "Wolf" Jens Olsen in command. The inference proved correct, and the next day we had the pleasure of meeting the redoubtable "Wolf," a charming but exceedingly venturesome sea rover who has the



The author goes into action with a 24-inch Dallmeyer telephoto attached to his graflex. The apparatus is a clumsy one but the results were excellent.

habit of taking chances, and as a result gets "be-set," which is the polite term for getting stuck in the ice, at least two or three times every year.

When we got back to the Hook, we found that Treurenburg Bay had become filled with ice during

our brief absence! This did not make us feel any happier, it only served to convince us that our best interests lay elsewhere.

We ran eastward along the edge of the pack, and not far from Shoal Point we found an area which appeared to be looser, and possibly penetrable. Into it the "Isbjorn" plunged, headed north by north-east, and for the next ten hours it was a case of "pull Dick, pull devil," with the odds in favor of the ice. The night was a perfect one, at twelve o'clock one could easily have acquired a case of sunburn while standing on the bridge, and the saucy little guillemots, and the inquisitive, stub-nosed "snads," swam alongside or followed us, and cheered us on our way.

At first the going was very difficult, for the ice was new, and tough. The encompassing band was approximately twenty-two miles wide, but our zig-zag course compelled us to cover twice that distance. Occasionally, luck favored us, and we would strike a hundred yards of rotten ice. The ship would rip through this as if it were cheese, only to bump her rounded nose, with tremendous force, against a real obstacle in the shape of a broad and thick floe which had not yet begun to be influenced by southern wind and sun. Sometimes we would back up and give the offender a second punch, in the hope of fragmenting it, but generally we found it easier to follow the course of least resistance, and slowly worm our way between the floes. The hull

of the "Isbjorn," as in all modern Arctic ships, is shaped like a hen's egg, split lengthwise, and it is practically impossible for her to get caught and pinched in the ice. When the ice closes in, the boat is simply lifted out of the water, and when the pressure is relieved, back she drops, on top of the waves.

All of us enjoyed the battle with the ice. Dick insisted it was better than a first-class dog fight. Possibly, if we had had a less efficient personnel, or an old and improperly constructed vessel, we should have been less happy.

I turned in at 3:00 A.M., leaving Dick to cover the story. When I got back on deck, at seven and started to use one of the cameras, I found that the color screens had been shifted. Suspicious, I diplomatically questioned "Olie" Olsen, the steward, a splendid young chap, and learned that after I had retired from the field, Dick and my pet graflex camera had spent an hour or more in the crow's nest, forbidden territory for him and Emmy Lou, because of its dangerous position, high up on the main mast. I said nothing about it, however, and Dick did not volunteer any information. It was not until the films were developed that he confessed.

We had almost reached open water when I came out of my cabin, the morning of the seventeenth, and one of the first things I saw was the battered old "Haakon," with "The Wolf" perched at the prow, a much worn but rakish-looking fur cap jauntily

cocked over his right eye, and a broad grin on his face. He had managed to break through the floes that separated his ship from ours, and was following us out.

He was as proud of our captain, who is generally conceded to be one of the best ice pilots in the world, as we were. "Some Skipper you've got there!" he admiringly called across to us. And some sport, I'll say, that "Wolf" Olsen.

TRANSPORTATION AND EQUIPMENT

IT IS an old saying that "victory awaits him who has everything in order." Luck, some people call it.

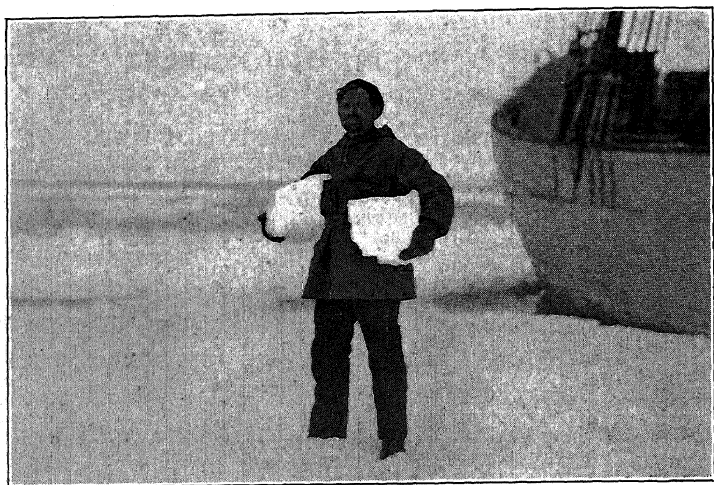
In transporting equipment, and particularly guns and ammunition, I have found it advisable to make as few stops and transfers as possible. For this reason, I should advise a transatlantic steamer that goes directly from New York to Norway.

We found the Norwegian-America line excellent. The service is good, the rates extremely reasonable, and the officials courteous.

When taking firearms into foreign countries, full and frank declarations must be made. This is very essential, for the laws are much more strict than at home. In order to expedite matters, have your agent at the port of entry secure rifle and ammunition permits in advance. This will save both time and trouble. Tromsö is the capital of the North. There is a daily steamer between Bergen and Tromsö. The service is not luxurious, but what can one expect for six dollars a day? The trip up the coast is an interesting one, particularly if the traveler is blessed with decent weather.

In planning my shooting trips, whether the destination be Canada, Mexico, Africa, India, or Indo-China, I have found it best, and in the end, most economical, to entrust my affairs to some first-class safari organization.

Secure the best agent possible, several months in advance. Investigate his claims—no honest man will object to this—and then place yourself in his hands. As a rule, safari and similar organizations that are recommended by government and by railway and steamship companies will prove satisfactory and dependable.

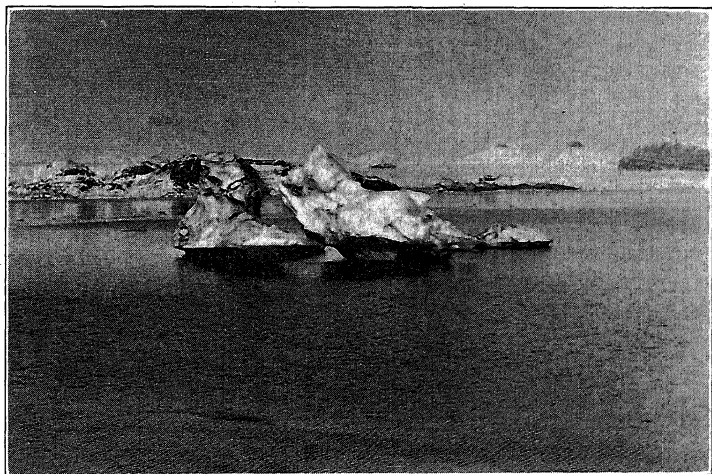


Ernst Sorensen, our guide, helps to bring in a supply of fresh-water ice

Government officials, and the heads of big transportation companies generally are conservative. They have to be. In the matter of territory, one has a choice between Spitsbergen and adjacent islands, Greenland, and Alaska. I should judge that the time required and the expense incurred are about equal in all three countries. With respect to Spitsbergen and Greenland, the two might aptly be

compared to Kenya Colony and the Tanganyika Protectorate. Both are easily accessible, particularly from Tromsø.

The Spitsbergen season is from the latter part of May to the first of September. Before or after those dates, the visitor is almost sure to be embarrassed by ice.



Old icebergs are of all sizes and shapes. They come from fresh-water glaciers, and we depended upon them for our ice supply

The Greenland season is shorter, from the middle of July to the middle of August, with a week at each end for the trans-arctic steamship trip.

Ships for northern shooting expeditions must, of course, be procured many months in advance. The vessels are especially constructed for work of this sort, with heavy wooden hulls, and low-powered but

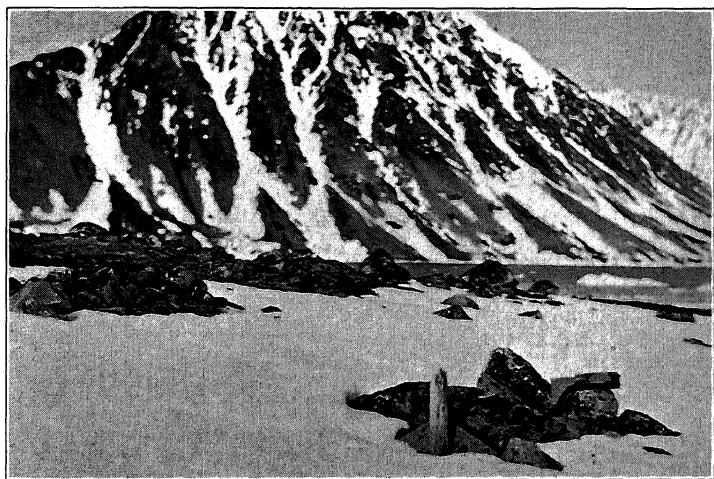
sturdy and dependable engines. The majority use crude oil for fuel, and nearly all are of the auxiliary type. Every precaution is taken against accident, but in case the engine should break down, there is nothing like having sails to fall back on. They are as certain and infallible as death, taxes, and a Moi bullock cart. A wireless outfit is not absolutely essential, but I should not think of chartering a ship without one.

Having selected the territory and the prospective date, the next thing to do is to get in touch with a reliable man who can supply the desired vessel, together with a skilled and experienced crew.

The Tromsø Ship Owners' Association has been organized for this very purpose, and is of course dependable and trustworthy in so far as structural details are concerned. Unfortunately, hiring a boat is one thing, equipping and properly provisioning her is another. One must realize that six weeks or two months on a small sloop, with a crew that cannot speak English, and a chef that cannot cook American, is liable to prove onerous, if not positively unpleasant. For this reason, if no other, it is advisable to negotiate only with someone who appreciates your actual needs, if not your desires.

Shipowners and skippers will make all sorts of absurd claims regarding the speed and accommodations of their craft, as well as the experience and skill of their officers. The fact that a man once served as ice pilot (from Tromsø to Cape Mitre!)

for some eminent explorer is no particular recommendation of his fitness as the leader of a hunting expedition. Some of the best guides that I have ever known were very unassuming individuals, and mighty poor publicists. Some of the most widely advertised shooting boats in the North have not suitable cabin accommodations for a well-bred fam-



A lonely grave on the shore at Magdalena Bay

ily cat, and they smell to high heaven of codfish and similar denizens of the briny deep, in addition. So look before you leap, or have some trustworthy agent do your looking for you.

We were so fortunate as to secure the services of the Bennett Bureau, of Oslo, and never for a moment have we ceased to be grateful.

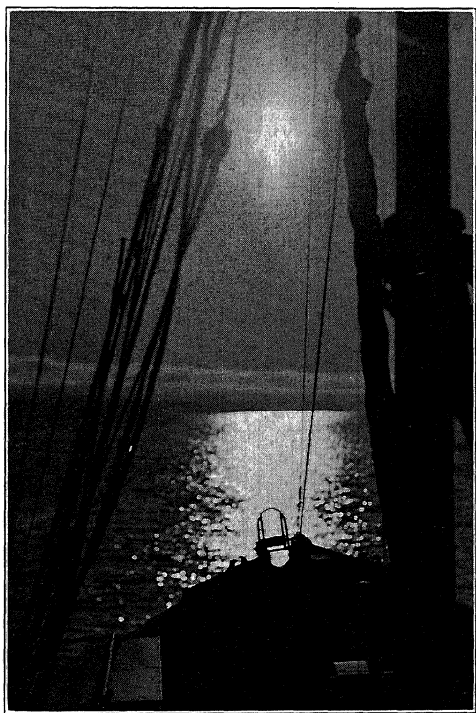
The Bennett Company is to the Norwegian travel business what J. C. Nichols is to the Kansas City Country Club District, indispensable.

The articles on a Norwegian bill of fare, while toothsome and delicious, are liable to become a bit wearing and monotonous to one who is used to fresh fruits, fried chicken, sweet potatoes, hot biscuits, and yellow bantam corn. Even with so expert a cook as dear Mrs. Lillemonde Lundh on the job, our appetites sometimes became a bit jaded, consequently, if you would be happy, if possible, ship an American chef.

With a comfortable boat, an efficient crew, a good cook, and a supply of suitable provisions, your expedition is bound to be a success, for the scenery is delightful, and the climate invigorating. As Dick said, every day seemed the Fourth of July.

While we were fortunate in the skipper that fell to our lot, we also drew another prize. This was our guide, philosopher, and friend, Ernst Sorensen. His views of life and ours did not always parallel, and he was a profound believer in the mental inferiority of women. This, Emmy Lou never forgave him. She seldom allowed him to bask for long in the sunshine of his own ego. Nearly every day, she would manage to start an argument with him, and usually wound it up with a few pin pricks as severe as if administered with the point of the cherished little Swedish hunting knife that always nestled in the scabbard at her side. But with all

of "Ernie's" idiosyncrasies, we grew to appreciate and like him very much. An enthusiastic admirer of Nature, an excellent linguist and Latin scholar, and a sincere lover of the great outdoors, it was an



Dick photographs the midnight sun near Amsterdam Island

inspiration just to associate with him. From a financial viewpoint, unfortunately too often the world's criterion of success, Sorensen was an acknowledged failure, but he certainly was the captain of his soul, and how many of us ever rise to that eminence? I

can see him now, half reclining on the forward hatch, his dreamy eyes fixed on the snow-covered Spitsbergen peaks, his thoughts hitched to the silvery clouds on the far-off horizon. I never willingly aroused him from a trance like that. Life is too short.

At home, he had a wife, a step-daughter, and three children of his own to support. In winter, he repaired shoes, tutored in English and French, fished, read, and bound books—this last he loved best of all. In summer, he served as interpreter and guide for parties like ours. At forty-four, he still hoped some time to be blessed with a four-figure income, and when he was not working, he was dreaming of a trip to the inaccessible North, in a skin kayak and a folding sledge! God love him.

Our medical kit almost proved a needless burden. But one never can tell, and it always is best to be prepared for the worst. A minor surgical kit, a couple of two-inch rolls of adhesive, gauze bandages, surgical dressings, and threaded needles, plentiful amounts of some reliable antiseptic—I prefer hexylresorcinol solution—a hundred one grain tablets of potassium permanganate, calomel, aspirin, tincture of iodine, yellow oxide of mercury ointment for the eyes, two hypodermic syringes, with tablets of morphine, novocaine, strychnine, ether, and atropine, toothache medicine, a hot water bottle, and some soft rubber catheters. A small book on minor surgery might prove useful.

Skis must not be forgotten. Practically every adult Norwegian is skilled in their use, and in traversing ice fields, they are invaluable. For some strange reason, and much to our regret, we neglected to equip ourselves with these very useful appliances.

In the selection of clothing, the factors of warmth and dryness are equally important. No normal individual wears skins in the summer time. As Stefansson has suggested, two suits of light underwear will prove warmer than one of heavy underwear, no matter how thick it may be. Waterproof boots are absolutely essential. Of these, we found Bean's rubber-footed Maine guide shoes best. Heavy woolen socks are worn. If it becomes very cold, these may be reinforced by a pair of thin woolen hose, underneath. Waterproof breeches, not too tight, of the Dux-Bak type, are better than woolen pants. A chamois golf jacket is indispensable. Several layers of moderately light clothing are preferable to a few of heavy material. With two suits of medium weight underwear, a grey flannel shirt, a chamois jacket, and a windproof "overall," such as a Bean "parka," of heavy rain-proof material, one is fairly comfortable, most of the time.

For head coverings, we brought with us some leather sheepskin-lined aviation caps. They looked warm, but did not prove very practicable. We were unable to find any soft woolen caps. Finally, in desperation, my wife suggested that she could make

them, and she and our daughter purchased some yarn, and crocheted a cap apiece for us. Emmy Lou made mine, of soft, brown wool, and it was a constant source of joy to me. For two months, I practically lived in it. I not only wore it all day, if the weather was very cold, I slept in it at night! With the hood of my parka as a supplementary



A sunny day on deck

covering, at no time did my head suffer from the arctic breezes. Through the kindness and generosity of my valued friend and brother angler, Mr. Stanley Lindley, of Yale University, each of us was equipped with a pair of fleece-lined English sleeping socks. They gave splendid service, and were in constant use.

Just before we left home, our old friend, Dr. Andrew W. McAlester, and the officials of the American Optical Company, presented each of us with spectacles made of "Calobar" glass, a material which optically is most admirable, and which protects the eyes from sun and ice glare. Nothing we brought gave us more comfort than these glasses. Mine were bifocal, with very broad lenses, and served not only as regular spectacles, but also as shooting glasses. In this way I was saved much bother and inconvenience, and also many headaches.

In the matter of cameras, experience has convinced me that there is only one choice. I have tried all, or nearly all, of them, and for the past fifteen years have grown to depend entirely on American instruments of the reflex type. They are efficient, durable and dependable.

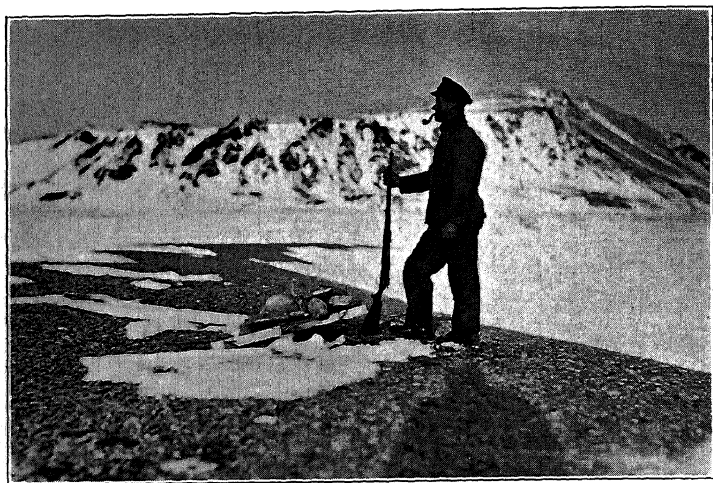
I consider the 4 by 5, Series D, Graflex, with standard domestic or imported f 4.5 lens, the best camera ever built. We took with us two instruments of this type, together with one standard 5 by 7 Graflex, and one 5 by 7, Home Portrait Graflex, with a twelve-inch Zeiss, f 4.5 lens. Our lenses were fitted with half and full yellow filters of various sorts. In addition to the regular lens equipment, we also carried two telephoto lenses, a 15-inch, f 5.6, Cook-Taylor and a 24-inch, f 4.5, Dallmeyer.

We used only verichrome film packs. In very cold weather, care must be taken with the larger packs, or, owing to the stiffness of the celluloid

film, the tags will pull off, but we quickly learned to avoid this, by shifting with a steady, even pull.

Dick is a movie fan, and had with him his regular 16 mm. outfit, provided with additional three and three-fourths, and six inch lenses.

The question of armament I have left to the last, for the subject is one which is always of interest



Our First Officer, armed with his Krag rifle, finds a fox trap on the shore of Treurenburg Bay

to sportsmen readers, and I suspect that only an enthusiast will have pursued my subject to this point.

In attacking big game in tropical countries, I have always relied on heavy, double English cordite ejectors, for even soft-skinned animals, such as lions and tigers. But in the present instance I felt that Mausers of fairly large caliber would prove

satisfactory. Besides, we hesitated to expose our fine Holland and Holland and Jeffrey rifles to moisture and salt air over so long a period of time. I should very much like to have tried the four hundred and four hundred and eighty grain nickel bullets on walrus, for I feel sure that such projectiles, with sixty or eighty grains of smokeless powder behind them, would give splendid results, but I am glad we depended only on the Mausers, and Emmy Lou's 6.5 millimeter Mannlicher Schoenauer.

For many years, Dick has placed his faith in a .375 caliber, bolt action Hoffman, a beautiful and efficient, but rather heavy weapon, with a twenty-six-inch barrel, and Lyman sights. With it he has killed all sorts of game, from jack rabbits to large African antelope, and even rhino.

While I have great confidence in the power of rifles of this size, my experience with the various cartridges designed for them, or rather with the various cartridges for which they were designed, has not been so edifying. The cartridge made by the Western Cartridge Company is the only one in which I have learned to place absolute confidence, and if ammunition of this sort were readily procurable, I should not hesitate to become a .375 fan. Unfortunately, it is not. In looking about for a so-called "all around" rifle, I decided to give the 9.3 millimeter a trial. In my experience, guns of this caliber are the most popular ones in Africa today. I purchased my first, a Mauser Magnum, of the so-called 9.3-62 cal-

iber, from my old friend Schlottman, the Tanganika Stores, Arusha. It proved so very satisfactory that I have since had built a second Mauser, by Sauer, of Suhl, equipped with a 4X Zeiss telescope sight. This is an instrument of precision, and one of the most accurate and satisfactory guns that I have ever owned. The German ammunition I have found reliable, as well as comparatively inexpensive. It can be procured at two of the larger New York sporting goods establishments, and in practically all foreign countries, where any shooting is to be had. Those made by Kynoch, in Great Britain, I have found excellent.

I also own a third rifle of this caliber, a fine old pre-war double, likewise built by Sauer, but it handles the rim cartridge, 9 3x74. I picked it up, in used condition, at Fort Leavenworth, but have never tried it on big game.

With respect to the amount of ammunition one should take on a two months' trip of this sort, that is wholly dependent upon the "shooting proclivities" of the various members of the party. Dick is an enthusiastic burner of powder, and I am not such a poor hand at it myself. I have always firmly believed that the only way one can learn to shoot is to shoot, and the Dupont Company really should consider me a sort of silent partner. Consequently, we took with us five hundred rifle cartridges apiece, and used all of them. When we couldn't find bears, we hunted walruses and seals, and if these were not

available, we confined our attention to guillemots. If the guillemots failed us, we shot at icebergs. Emmy Lou was the worst of the family. I really believe that she would cancel an engagement with her dressmaker in order to "target in" a new rifle, or test the penetrative qualities of a fancy bullet.

With respect to shotguns, both my son and I are enthusiastic advocates of the 20 gauge. Unfortunately, the Norwegians are not, and our cartridges for my pet Griffin and Howe, over and under, had to be procured in advance, from Germany, by our agents, the Bennett Company.

My brother, Dr. W. P. Sutton, kindly loaned us his 12 bore L. C. Smith for use on the trip, and in six weeks we fired it more than a thousand times!

In shooting arctic birds, if one expects to kill them, heavy shot, Nos. 4 to 2, are indispensable. In procuring bird specimens, one must of course use smaller pellets, but I will warn the prospective visitor that if he does, he should take plenty of cartridges. A lot of ammunition is going to be wasted

SPITSBERGEN PLACE NAMES

By J. QVIGSTAD

Staff Member and Rector of the Tromsø Museum

I. West Coast of Spitsbergen

A. From South Cape to and Including Horn Sound



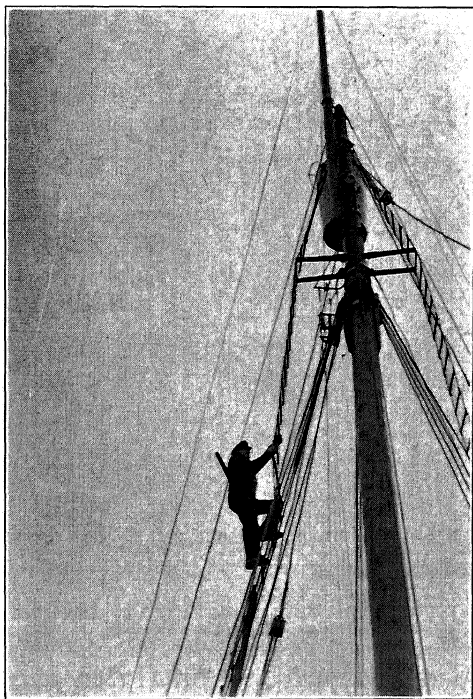
OUTH or Lookout cape A; Syd cap N; norw. Sydkap; Point Loockhoute 1613 Gerritz; Generals hoeck, 1614 Carolus Kyckuyt 1620 Doedz. Suydhoeck 1622 Blaeu; P. monier 1634 Carolus; Premiere pointe 1635 Wieder nr. 63; C. de Kijk uyt Whales Back 1663 Doncker; C. de Uyt kyck or Whales backs 1690 Valk Schenk. On Giles and Reps charts the southernmost point of Spitsb. is denominated De Zuyd West hoek van Spitsberge, and terminates in Zuyd Kaap in the west and Kaap de Uytkyk or Whales back in the east. In 1614 Antonie Monier was commissary general of the Dutch fleet of Whalers.

South cape is situated on South cape island, probably = Ronde Klip 1634 Middlehoven. The adjoining small islet is called South Cape islet (Sydkapholman).

Freeman bay 1613 Fotherby, a bay a little way north = norw. Snaddenbai of snadd (Phoca annulata). The Englishman Freeman, in 1619, called among the "masters" on Spitsb., and was in 1620 and 1630 owner of whalers.

Lord Suffolk's point, 1613, Fotherby, Palffy Cap 1872 Wilczek, a point in the south near the entrance to Horn Sound.

Horn Sound A, Horn Sund N, Norwegian Hornsund. „They (the men) brought aboard a piece of



The First Officer, armed with a huge telescope, going up into the crow's nest to look for game

Deeres (reindeer) horne, therefore I called this Sound, Horne Sound“ (Poole 1610); Hory Sond or Hoorn Sond G. R. (Giles and Reys, chart of Spitsbergen, 1720). Horizont Baay 1720 Zorgdrager.

Count Hans Wilczek's expedition in the ship "Isbjorn" visited (1872) Horn Sound and gave names to many places.

On the south side of Horn Sound is Hohenlohe Spitze; Wurmbrandt Rucken; Hofer Spitze (Hofer Point A.) after Professor Hans Hofer, geologist, b. 1843, in Bohemia, joined the Wilczek expeditions.

Goose Haven A; Boules bay 1613 Fotherby; Swedish Goes hamn, called by Nordenskiöld after A. Goes, Swedish zoologist Spitze; Traun Grat; Meran Spitze.

At the bottom of Horn Sound is Adria Bay A. Adria Bucht and on the inside this, Horn Glacier A. Ramme Gletscher and Marie Spitze.

On the north side of Horn Sound is Burger bay A. Burger Hafen, Norwegian Isfjelhamna; Muhlbacher Gletscher; Paierl Gletscher (after Paierl, Austrian alpine guide of Karnten); Lucia Kamm; Sophien Kamm; Fanny Spitze; Hanns Gletscher called so after Professor Julius von Hann, b. 1839, Austrian natural philosopher; Isbjorn Haven A 1872 norw. Isbjorn-hamna; Wiltschek Spitze.

On the outside of Burger Hafen are the Emo Islands.

Of mountains in the south is Keilhau's berg called after Professor B. M. Keilhau, Norw. geologist, b. 1797, d. 1858. South of Keilhau's berg is Keilhau's glacier called, 1900, after Keilhau in memory of his visit to South Cape, 1872.

Farther north is High Peak A. Hajtanden N. Norw. Hoipiken; Hedgehog glacier A. Hornsund Tinder A. North, and nearer Horn Sound, Mount Hedgehog A. Horn Mount N. Norw. Hesjehuken. Scoresby writes (I, p. 96): „Horn Mount or Hedgehog Mount so called from an appearance of spines on the top when seen in some positions, takes its rise from a small tract of alpine land, on the southern side of Horn Sound. It has different summits, chiefly in the form of spires, one of which is remarkably acute and elevated.“ According to the illustration in Scoresby (II, plate 3) this may be Hornsundtinden. The highest of the mountains is in Norwegian called Hornsundtinden = Muscovy Companies Mount 1610 Poole, Moscovit mont 1613 Gerritz. Poole called the mountain in honor of Muscovy Company in London, “because it was my first landsale (landfall?).”

Lord Worcester's point (1613 Fotherby) on the north side of the mouth of Horn Sound. The hill behind this point was according to Conway probably Lammas Island 1607 Hudson. 1611 Hondius, was seen by Hudson the 30 July. English Lammas (day) is 1st August.

B. From Horn Sound to and Including Bell Sound

Dun islands A, Dunoarna N, Norw. Dunoyan or Hornsundsoyan: Noroya, Storoya and Soroya. They are very rich in eiderdown (Nordenskiöld 1864).

Ice islanda A, Isoarne Norw. Isoyan.

Ice point A, Norw. Dunderbai-huken or Dunderpynten. Poole called in 1610 the point, the Ice Point, because there lay an abundance of ice upon it.

Dunder bay A. N. Norw. Dunderbai or Dunderbukta, perhaps after an arctic skipper from Hammerfest Ole Dunder, who in 1847 commanded the schooner, "Polka," and had been killed here by his harpooner.

Sore Bellsundholman, islets to the south of Cape Lyell.

Cape Lyell A. N. (called by Nordenskiöld after Sir Charles Lyell, English geologist and traveler, b. 1797 d. 1875) Norwegian Sore Bellsundhuken = Bell point 1610 Poole, „because of a Hill formed like a bell on the top.“

To the north of Horn Sound is Rotges Mount Norw. Rotgesfjellet (Dutch, rotjes, Mergulus alle, little auk). Immense swarms of rotjes hatch at the Rotges Mount to the North of Horn Sound (Nordenskiöld 1865).

Lavneset at the Rotjes Mount.

Torells Glacier A, Norw. Storisfjellet; Slaad berg 1707 G.-R; Iceberg Mount 1820 Scoresby. Renowned by Nathorst after O. Torell, Swedish geologist and zoologist, in Spitsbergen 1858 and 1861.

Roebuck Land A, Norw. Raabuklandet; Reevelt 1663 Doncker; Rheelandt 1682 Van Keulen; Roebuck land 1820 Scoresby. The name is due to a mistake (Conway, page 348).

Bell Sound A, Bel Sound N. Norwegian Bellsund, see Bell Point; Inwyck (bay) 1596 Barentsz; Bellsound 1613 (Gerritsz') "Les basques de S. Jean de Luz ont nomme' ceste baye de Belsond la baye des Franchoy's a cause qu'elle celle nation y estoit la plus part, tout ainsi qu'ils out nomme' des autres bayes, seton la Nation qu'ils y trouverent." (After the chart = Van Keulen Bay A) Kloeck Rivier 1620 Doedsz (= Van Mijens bay), clock bay. Colom (of the whole Bell Sound).

Bell Sound divides itself in three bigger fjords: Recherche bay in the South A. N. Van Keulen bay in the southeast and Van Mijen bay in the northeast A. N. Originally the entrance of the fjord and Van Keulen bay bore the name Bell Sound. Later Van Mijen's bay usually was called Klok rivier.

Recherche Bay A. N. received its name from the French expedition in 1838 which called it "Baie de la Recherche" after their ship „La Recherche.“ The Dutch skipper Willem van Muyen called it in 1612 Schoonhaven (Pretty Harbour) and the English Clean Bay 1820 Scoresby. Norwegian Sorbaien.

The Englishmen called it "Joseph's Bay" (1613 Fotherby) after their admiral Benjamin Joseph (Conway, p. 58) but the English whalers usually called it Ice Bay (the bay in Bell Sound which they call Ice Bay, 1619. Conway p. 126).

To the west of Recherche Bay is Bell Mount (A. 1913) Norw. Bellfjellet and Scott glacier.

On the coast the Bellsundstranda (Bell Sound shore) is found to the east of Roevneset (Pointe des Renards. Fox point). According to others the coast to the east of Recherche Bay, between Reindeer Point and Cape Alstrand, is the Bell Sound shore.

In Recherche Bay lies Training Squadron Island (islet)—Rheen Eylandt 1662 Blaeu. It is named after a British Training Squadron which was there in 1895.

In the bottom is Observatory Mount after a meteorological observatory which the French expedition had there in 1838.

To the east is situated Robert's river and Robert's valley named after the French geologist, E. Robert, who joined the French expedition 1838-1839.

At the entrance to the east is Reindeer Point.

Van Keulen Bay, Norw. Sorfjorden, had originally the name Sardamer Rivier 1613 Van Muyden, 1620 Doedsz (after Sardam, presently Zaandam, a town in Holland to which many whalers belonged) while Van Keulen's Baaytje 1707 G-R. is a little cove on the northern shore of the fjord, Middle Hook Haven A. Norw. Midterhukhamna. One Scoresby's chart 1820 the whole fjord is called Van Keulen's Bay.

On the southern shore: Cape Alstrand, Norw. Kvitfiskneset (= white whales point). Here is Sterneck island, Norw. Tennoya (hatching place for Terns, *Sterna arctica*). Max von Sterneck joined (1872) Count Wilczek's arctic voyage.

Fleur de Lys Haven A. Norw. Kvitfiskbukta, because here white whales have been caught. Bourbon Haven A. These two harbors were named by Henri de Bourbon who in 1891-1892 with the yacht "Fleur de Lys" visited Spitsbergen.

Ingebrigtsen bukta (bay) after Morten Ingebrigtsen of Tromsö, arctic skipper, later whaler, born 1848.

Alesundsneset, after a skipper from Alesund who caught white whales here.

At the bottom of Van Keulen Bay is Nathorst's Glacier, named after A. G. Nathorst, Swedish geologist, botanist and arctic traveler b. 1850 d. 1921.

Innermost at the bottom were Isfjellholman, two ice islets which recently have melted and disappeared.

On the north side of the fjord is Breakfast Point A. Norw. Frukostneset.

Hamna, behind Eder's Island, A. Eders e. N. Norwegian Edersoya, where formerly eiderducks (*Somateria mollissima*) hatched in great numbers.

Middle Hook A., Middel Hook N, Norwegian Midterhuken, which terminates in Separation Point A, Point Partition 1610 Poole, Belpoint partition 1613 Gerritsz, separating Van Keulen Bay from

Van Mijens Bay (Klok Bay) A, Lowe Sound (Van Mijen's Bay) A, 1913, Van Mijen's Bay N. Norw. Nordfjorden.

Willem Muyen haven 1620 Doedsz, Willem van muijens haven 1634 Carolus. Willem Cornelisz van Muigen or Muijden commanded in 1612 and 1613 the Dutch fleet of whalers. The harbour bearing his name was a little cove on the outside of Axel island on the north shore of Bell Sound and was called by the Englishmen, Bottle cove, 1630, Pellham (Conway, p. 142). Giles-Rep indicates on his chart at the mouth of Bellsund: Bel Sond or Klok Bay or Willem van Muyen's Bay.

The old English names of Van Muyen's Bay is Lowe Sound 1610 Poole.

Van Mijen's Bay terminates in Michiel Rinders' bay A, Rinders rivier 1620 Doedsz, named after Mich. Rinders, a Dutch skipper. A narrow channel leads from here to Braganza Bay A, discovered 1891 by and named after Princess Aldegonda of Bourbon, born Braganza; Norw. Bulder bay because of frequent landslides.

On the north side of Van Mijen's Bay is Leirhauan (Moraines Dames Isachsen), Smaadalen (Vallee Nordenskiöld Isachsen) Vrakbukta (to the east of Cap Dom Miquel Isachsen), then follows a bay very shallow and impassable for ships. Cold Harbour A, Koude Herberch 1634 Middelhoven; een drooge Fioerd (a dry fjord)—Koude Herberg G-R.; Dry fjord—Cold Harbour 1820 Scoresby.

Ondiepe Valley or Dry fjord A, Conway valley A, ends in Cold Harbour. G-R har: „Vol Mouras daar sig veel Rheenen onthouden, genaamt Ondiepe Rivier“ (Swampy land where many reindeer stay, called the shallow fjord).

Dreary valley A, named by Conway 1896 is a tributary to Ondiepe Valley, Norw. Tverdalen. In Nordmannsdalen (Isachsen) the Nordelva or Isfjellelva is found.

To the east of Stordalen is Sundewall's berg, called after Professor C. J. Sundewall, b. 1801 d. 1875, Swedish zoologist, who joined the French expedition in 1838.

Blaahuken lies to the southwest of the former.

Coal Mountain A., Kolfjellet N.

Frithiofs Mountain A., Frithiofs isfjell, named after „Frithiof,“ Torell's ship in 1858. There is Johan Adrian haven now cornered by the glacier also named after Johan Adrian Johannesen, an arctic skipper, d. 1898, in Balsfjorden.

In the mouth of Van Mijen Bay is Axel Island A. The big one bears the name Axel Island, while the small one is called Little Akul island or what is now most usually Maria island.

On the outside of Axel Island is Bellsundholmen (islet). The point of land to the north of Bell Sound entrance is called Lavneset or Nore Bellsundhuken; Lowsonndness 1613 Gerritsz'; Lowe nesse

1625 Edge. Poole writes 1610: "Upon the north side of the bay (Bell Sound) is low land which I named Lownesse Iland."

C. From Bell Sound to and Including Icefjorden

The peninsula between Bell Sound and Icefjorden is called Nordenskiöld land 1896 by de Geer after Adolf E. Nordenskiöld, Swedish geologist, astronomer and arctic explorer, born 1832.

To the north of Bell Sound are Sunken Rocks A; among these there are three islets: St. Hansholman; Lizets Islands 1613 Baffin; Lisset's Island 1625 Edge, Lizets Rocks A, 1913.

Icefjord (Ice Sound) A, Norw. Isfjorden; Grooten inwyck, 1596, Barentsz; Great Indraught 1607 Hudson; Ice Sound 1610 Poole ("a great sound which because it was covered with ice, I called Ice Sound"); Ys Sond G-R, Ice Sound 1820 Scoresby.

The southern promontory at the entrance to Icefjord is Cape Staratschin A, Shrewsbury point 1613 Fotherby. Nordenskiöld named this promontory after the Russian hunter Staratschin of whom Keilhau relates is buried at Green Harbour. Supported by the monks of Solovetskoi monastery, he passed thirty-two years in Spitsbergen where he died, in 1826, at a very old age.

Near the outmost point of Cape Staratschin is Festninga (Fortress) a small steep islet which has received its name from Norwegian hunters due to its appearance.

To the west of Cape Staratschin is Russekjeila (river) which runs out from Russevatnet (Limie lake). Russian hunters had their huts there.

On the south side of Icefjord a fjord runs southward: Green Harbour A. N. called so in 1610 by Poole: Groen Haven 1634 Middelhoven; Groene Herberg or Groene Haven G-R.; Gronne Herberg 1827 Keilhau; Norw. Grön Herberg. There is in Green Harbour vegetation which in richness, abundance and variety far surpasses that encountered under similar conditions elsewhere.

On the east side is Gron Herbergdalen and Kvalneset where formerly there was a whale oil factory.

Cape Heer and Heeresberg N, named after Professor Oswald Heer in Zurich, botanist and geologist, b. 1809, d. 1883.

Russ-elca between Cape Heer and Coal Bay = Hollenderelva (Isachsen). Ruins of Russian huts.

Advent Bay A. N. Norw. Advent bai = Adventure Bay probably named after an English whaling ship which stayed there in 1656. This bay was originally named Klaas Billen Bay, but the name has been transferred.

Klaas Billen Bay A. N., named after Captain Cornelisz Claasz Bille, a Dutch whaling skipper, about 1625.

Safe Harbour, Behouden haven 1613 Gerritsz', Poppy Bay or Nickes Cove 1613 Baffin; Havre de demeure 1628 Guerard; Saef harbour 1716 Moll; Safe haven 1820 Scoresby.

D. Icefjord to and Including King's Bay

Foreland Sound, Norw. Forlandsundet; Keerwyck 1596 Barentsz „Bay out of which you must return,” meaning a bay that strikes one at first as being a Channel. Fowle Sound 1610 Poole; Vorland fiort 1690 Valk-Schenk; Forland Fiord 1820 Scoresby. On the mainland St. John's bay, Osborne's inlet 1673 Gerritsz'; S. ians haven 1620 Doedsz; St. John's bay 1820 Scoresby.

English bay, Cove Comfortless 1613 Gerritsz', English bay 1820 Scoresby.

Prince Charles Foreland, Norw. Forlandet. Point Ile 1610 Poole; Prince Charles Island 1614 Fotherby (named after the Prince of Wales, later King Charles I). Isle de Kijn 1613 Gerritsz' after Kijn, a Dutch merchant who fell down a mountain and was killed. Kijn Eyl 1622 Blaeu; 'tvoorlant 1634 Middelhoven. Charles Island is usually called “the Foreland,” Scoresby.

From south to north on the east side: Saddle Point; Black Point 1610 Poole; C. Kynnae 1623 Blaeu; Zuijdhoek 1650 Colom. Black point 1820 Scoresby.

Fair Foreland or Vogel Hook. Vogel Hoeck 1596 Barentsz; Fair Foreland 1610 Poole; Norderhoeck 1650 Colom. “Ce bout, nous l'appellions la pointe des Oiseaux, pource qu'il y avoit tant d'Oiseaux dessus et a l'environ.” (This point we called birds' point because of so many birds thereon and about.) (Barentsz' journal.)

Cape Cold 1615 Edge: "I called a point (that lyeth foure leagues to the Northwest of Black Point) Cape Cold (Poole 1610)." It may be the one which Scoresby describes (I, p. 97): "On Charles Island is a curious peak which juts into the sea. It is crooked, perfectly naked, being equally destitute of snow and verdure and, from its black appearance or pointed figure, has been denominated the Devil's Thumb."

Black Hook. Norw. Midterhuken; Swarte Hoeck 1690 Valk-Schenck; Black or Middle-Hook 1820 Scoresby. With its great dark mass it forms a strong contrast against the surrounding snow.

The Middle-Hook of the Foreland is described by Scoresby (I, p. 97): "As the central part of the chain of mountains in Charles Island. These mountains, which are perhaps the highest land adjoining the sea which is to be met with, take their rise at the water's edge. This portion of the chain exhibits five distinct summits." According to Scoresby's description and illustration this mountain chain must be situated immediately to the south of 78° 40' from Mount Monaco and southward.

Cape Sietoe A, N; C. Sie toe 1620 Doedsz; Setie Tacy 1717 Van Keulen.

The Great peninsula between Icefjord on one side and the Foreland on the other is called Oskar II land, 1896 by De Geer.

*E. From King's Bay to and Including Amsterdam
Island*

Qvad Hook A, N; Quade hoeck 1690 Valk-Schenck.

King's Bay (Deere Sound), King's Bay 1820 Scoresby.

Coal Haven. The Dutchmen gathered here coal for fuel.

Deer Sound 1610 Poole. This name was formerly used to designate the whole of King's Bay (Deere Sound 1613 Gerritsz'; Deere Sound 1625 Edge) Scoresby gave this name to a little cove on the north side.

Cross Bay A, N; Crosse cove 1610 Poole; Crosse Sound 1613 Gerritsz'; Cruys sond 1682 Van Keulen; Crúys bay 1720 Zorgdrager; Cross Bay 1820 Scoresby. Norwegian Krossbai.

Crosse Road 1610 Poole. Poole writes: "Upon the side of a hill a mile to the westward of the road, I set up a crosse with a writing upon it, signifying the day of my arrival in this land, by whom I was set out, and the time of my being there." Scoresby writes (I, p. 115): "In West Cross Bay there is a good harbor."

Cape Mitra; Collins Cape 1607 Hudson; Mitre Cape by Scoresby in 1818: "The twelfth (of July) out of the top William Collins, our boatswain, saw the land called Newland by the Hollanders; the which we called Collins Cape by the name of our boatswain who first saw it" (Hudson 1607). Scores-

by (I, p. 118) writes: "I ventured to denominate in Mitre Cape from an insulated rock about 1,500 feet in height which terminates the high land stretching toward the south, being cleft down in the middle and having the form of a mitre."

Hamburger Bay. Le refuge aux Francois ou port St. Louis 1634 Guerard; port Louis ou refuge Francois 1635 Baskes bay 1658 Colom; Hamburg Bay (Keilhau, p. 242). The Danish captain Corfitz Ulfeld was sent up in a warship 1632 and 1638 and took this harbour from the Frenchmen. Later it was denominated Ulfeld's bay. Some hamburger obtained in 1645 from King Christian IV license for whale fishing and stopped there.

Whales back A; Maudlin point 1614 Fotherby; Swartenhoeck 1614 Carolus; Magdalene hook 1820 Scoresby; Norwegian Magdalena-huken.

Magdalena Bay A, N; Baye des dents 1596 Barentsz; Mari magd. Bay 1614 Carolus; M. Magdalenen sond 1620 Doedsz; Maudlin sound 1614 Fotherby; Maudlin sound 1625 Edge; Magdalena bay 1690 Valk-Schenck; Norw. Magdalena bai. "Nous gens y trouvoyent des dents de Morses ou vaches de Mer, parquoy la ditte Baye fut appelee Baye des dents" (Barentsz diary). ("Our men found there the tusks of walruses or sea cows, wherefore the said bay was called Baye des dents.") (Tusk Bay.)

In the bottom is Trinity Harbour 1614 Fotherby; John Duncan's bight behind the bottom is Waggonway glacier A. Numerous large rents in its up-

per surface have caused it to be named the Waggon-way in accordance with the supposed resemblance which these fissures bear to the ruts left by a wagon. (Arctic Pilot II, p. 241.)

The point at the northern mouth of Magdalena bay is Knottie point, 1610 Poole, "because it was full of Knottie mountains."

't Varken sonder hooft (the pig without a head) a mountain between Magd. bay and Fair haven.

Danes Island A; Deensche eyland 1650 Colom; Danes Island 1820, Scoresby.

Upon Doodmans Eyland (Deadman's Island) the Dutch had a cemetery.

Amsterdam Island: Amsterdamsche Eyland 1651 Jansz.

Smeerenburg, a stretch of low land in the southeastern corner of A. I. Famous from the Dutch period of whaling.

Amsterd. Island's north point is Hakluyt's Headland, 1607 Hudson; Ysse cape 1613 Gerritsz'.

In the middle of Amsterdam Island there is a high mountain with three snow-covered hills whereof two are near one another. They were called Maria met de borsten (Maria with the breasts) 1703 Zorgdrager.

The great bay between Danes Island and Amsterdam Island to the west and the mainland to the east is called Smeerenburg or Holland bay; Hollandische bay 1614 Carolus; Mauritius Bay 1634 Brugge, named after prince Morits of Oranien (Orange).

Zorgdrager says' that in his time Mauritius bay included the stretch from Smeerenburg southward. The portion of the bay north of Smeerenburg was called Nordbai 1634 Van der Brugge or Noorder gat 1690 Valk-Schenk. On the east of Smeerenburg Sound was Slaed bay 1690 Valk-Schenk, between IJs bergen in the north and IJs hoeck in the south. Here is a large cemetery.

According to Van Keulen's chart 1717, Makkelijk Oud was the name of three coves in Fair haven. According to Giles' big special chart 1724-29, Makkelijk Oud was situated to the east of Smeerenburg Sound, anchorage probably Kennedy bay (D. Geers charts in Ymer, 1913), Tweede Makkelyk hout or Kraayenest (crow's nest). The name Makkelijk hout means perhaps a good anchorage.

Barentsz called the islands on the northwest coast of Spitsbergen, Danes Island, Amsterdam Island and Vogelsang Island, Gebrokeneland (The broken land).

II. North Coast of Spitsbergen

The north coast begins at Foul Point A, N; Lage hoeck 1660 Doncker.

Foul Bay A, N; Vogel bay 1620 Doedsz; Bai des Oiseaux 1628 Geurard; Der groote Vogelbaij 1634 Carolus; Zealand bay 1634 Van der Brugge because the Hollanders had their first whaling station there; Bai met de Eylanden and Somer Bai (both names of the same bay) 1662 Blaeu.

The island in the bay was called Archipel 1634 Van der Brugge; Archipelago 1650 Colom. The biggest is Fowl Island. In the north are four islands:

1. Vogel Sang A, N., 1634 Van der Brugge; Vogel sanck 1652 Colom. This island was called Vogelsang because of all the birds which here stayed (Martens 1671).

2. Cloven Cliff A, N., 1614 Carolus; Saddle island, 1614; 1625 Edge; 't Eylant met de Kloof 1651 Jansz; Klip met de kloop 1682 Van Keulen; Cloven Cliff Scoresby 1820. "Une roche, laquelle estoit fendue par desus, fort bien a connoistre" (Barentsz). (A rock which is cloven on the top, very easy to recognize.) "A bare rock so called from the top of its resembling a cloven hoof (Phipps, 1773).

3 and 4. The Norways: Inner and Outer Norway.

Outer Norway with Seeuche uyt kyck (the zeelandske lookout) 1651 Jansz: The eastern part of the island is a hill Point Lookout that was used as a lookout.

The Sound between Vogelsang, Cloven Cliff and Norways on one side, and the Mainland on the other side is now called Fair Haven. Conway (p. 62) writes: "In modern times the name Fair Haven has generally been used for the anchorages near Vogelsang and the Norways. The early English

use of it was for Mauritius or South Bay in general, but especially for the South gat or English Bay."

Red Bay A.: Redcliffe Sound, 1614 Fotherby (so called because the mountains to the east were composed of a red devonian sandstone); S. Laurens Bay 1634 Carolus; Moniers bay 1620 Doedsz, after Antonie Monier who in 1614 was "commissary general" for the Dutch fleet of Whalers.

In the bottom the bay is divided in two by Point Deceit 1614 Fotherby. In the west Aijar Bay and in the east Beeren Bay, 1662, Blaeu. Fotherby believed that "a point of land that shot into the sound was an island. But when I came to the farthest of it, I saw it joyne the mayne land, where-upon I called it Point Deceit because it deceived one so much."

Red Beach 1614 Fotherby. On this land reindeer were very abundant, and the Dutchmen went there to hunt. They called it Renefelt's bay, 1658, Colom; Reindeerland, 1820, Scoresby.

Welcome point (where we landed and found the hut). Red Beach Point, 1614, Fotherby, Norwegian Rensdyrlandsodden. About the origin of the name Fotherby writes: "We came over the bay to Point Welcome which I so named because it is a place where we oftentimes rested when we went forth in our shallops."

Liefde Bay (bay of Love); Wiches Sound, 1614, Fotherby; Ostwyck, 1651, Jansz; Liefde bay, 1621, Martens; Love Bay, 1820, Scoresby.

The Norwegians call the whole of the fjord Scaier bay; the name presupposes the use of an old Dutch name, Biscaijebai.

Wood Bay, 1820, Scoresby. Plenty of driftwood on the shore.

Grey Hook; Castlin point, 1614, Fotherby; Grauwen hoec, 1650, Colom; Dorren hoeck (Dry hook), 1658 Colom. This point has received its name because of the dark clay slates.

In the north, is Moffen island; Moffen eylandt, 1650, Colom; Walrus eylandt, 1658, Colom. Walruses could here be caught in great numbers when they went ashore in the Autumn. Moffen is perhaps a bad Dutch nickname. The island is small, very low and flat.

Wiide Bay; Sir Thomas Smith's inlet, 1614, Fotherby; Wijde Bay, 1663, Doncker; Weide Bay, 1820, Scoresby.

Mossel Bay; Halvemaens Bay, 1660, Goos; Muscle Haven or Muscle Bay or Deer Bay, 1621, Martens; Mussel bay, 1820, Scoresby.

Verlegen Hook; Norw. Forle jenhuk; Point Desire, 1614, Fotherby; Verlegen Hook, 1820, Scoresby. This point is so called because pack ice gathers there and stops further progress.

Treurenburg Bay; Norwegian Sorgebai; Beere Bai 1663 Doncker. The bay has probably received

its name because of a disaster which happened to the Dutchmen there in 1693.

The peninsula between Wiide Bay and Hinlopen Strait bears the name of New Friesland.

III. East Coast of Spitsbergen to and Including Somme Bay

Hinlopen Strait; Norw. Hinlopenstroedet; Grote Bay, 1614, Carolus; De Straet van Hinlopen, 1662, Blaeu; Hinlopen Strait, 1820, Scoresby. Probably named after the Dutchman Thymen Jacobsz. Hinlopen, manager 1612 and later for Noordsche Compagnie. According to De Geer the original name is Heenloopenstraat and explains the name from the Dutch Heenloopen = run to and straat = sound. —Colom (1662) calls it Way gat. Martens (1662) writes: "It is not known whether this Weigatt runs through the land or not. The meaning of this name is Blow hole. A very strong southerly wind blows very often out of it."

Lomme Bay or Beere Bay; Bear Bay, 1820, Scoresby.

Cape Fanshawe; so named by Parry's associate, Lieutenant Foster, 1822.

Foster Islands after the aforementioned lieutenant.

West coast of North East Land from Wahlenberger Bay and north.

Wahlenberger Bay after Goran Wahlenberg, Swedish botanist, b. 1780, d. 1851.

Shoal Point, 1822, Parry. Shoal water is marked on the chart off this part of the coast.

Low Island is a low, flat island (Phipps, 1773).

Lady Franklins Bay, after Lady Jane Franklin, wife of Sir John Franklin.

Brandy Bay or Brandywine Bay or Brandewyne Bay, 1660, Goos. Brandywine Bay, 1820, Scoresby.

The seven islands; 7 Eylanden, 1660, Goos; 7 Broeders, 1614, Plancius.

Svalbard or Spitsbergen was rediscovered, Juni 17, 1596, by Barentsz. The 24 Juni the land received its denomination and Barentsz wrote then in his diary: "La terre au long duquel prenions notre route estoit la plus part rompue, bien hault et non autre que Monts et montaignes agues, parquoy l'appellions Spitsbergen."

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